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ABSTRACT

This annual report reviews progress for fifteen scope-of-work items of the National Center for Career Education's (NCCE) Career Education Information Training and Instructional Materials System (CEITAIMS) (September 1978-September 1979). These results to date are reported: acquisition of 8,687 items nationally; collection and classification of 8,486 items; maintenance of a materials system for national access; provision for access to materials through the National Lending Library, Pre-Packaged Starter Libraries, Topic Catalogs, and computer tie-ins to NCCE's data bases; implementation of major revisions of existing materials processing and information segment; dissemination of bimonthly newsletters to 8,200 individuals and over 450 mini-libraries to state coordinators of career education and practitioners in thirty-four states and territories; delivery of basic training models and special services; refinement of needs assessment instrumentation for use by local practitioners; maintenance of staff to deliver staff development inservice nationally; maintenance of dialog with national, regional, and multi-state agencies; maintenance and expansion of exchange of information with other dissemination agencies; and participation in significant conferences. Appendixes, amounting to over one-half of the report, include The Career Educator's Guide to Resources and Technical Assistance, available from NCCE, the NCCE Mini Libraries Demonstration Kit, and a third-party evaluation. (YLB)

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6. CATEGORY OF THIS PROJECT: Communications (as specified in 45 CRF 160.d.5)
7. PROJECT DIRECTOR: Dr. Vincent D. Barry
8. GRANTEE: NCCE, Inc.
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U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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FINANCIAL STATUS REPORT

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2. FEDERAL GRANT NO. OR OTHER IDENTIFYING NO.: 1 - 810359053 - a1

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NCCE
P. O. Box 7815
Missoula, MT 59801

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8. PROJECT PERIOD (Month, Day, Year): FROM 09 16 78 TO 09 15 79

9. REPORT PERIOD (Month, Day, Year): FROM 09 16 78 TO 09 15 79

10. STATUS OF FUNDS	PROGRAMS - FUNCTIONS - ACTIVITIES (1)	(2)	(3)	(4)	(5)	(6)	TOTAL
a. Total outlays previously reported	85,534.08						
b. Total program outlays this period	74,465.92						
c. LESS: Program income credits	0						
d. Net program outlays this period							
e. Total program outlays to date	160,000.00						
f. LESS: Non-Federal share of program outlays	0						
g. Total Federal share of program outlays	160,000.00						
h. Total unpaid obligations	0						
i. LESS: Non-Federal share of unpaid obligations	0						
j. Federal share of unpaid obligations	0						
k. Total Federal share of outlays and unpaid obligations	160,000.00						
l. Total Federal funds authorized	160,000.00						
m. Unobligated balance of Federal funds	0						

11. INDIRECT EXPENSE: a. TYPE OF RATE (Mark box)
[ ] PROVISIONAL [ ] FINAL
[ ] PREDETERMINED [ ] FIXED

b. RATE | c. BASE

d. TOTAL AMOUNT | e. FEDERAL SHARE

12. REMARKS (Attach additional sheets if necessary)

13. Certification - I certify that to the best of my knowledge and belief this report is correct and complete and that all outlays and unpaid obligations are for the purpose set forth in the grant award documents.

NAME AND TITLE: Dennis Niedermeyer, Asst. Dir. Admin.

TELEPHONE: AREA CODE 406 NUMBER 243-5262 EXT.

SIGNATURE OF AUTHORIZED OFFICIAL: [signature]

DATE REPORT IS SUBMITTED: 12/1/79

HEW-601T

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Appendix A: The Career Educator's Guide to Resources and Technical Assistance Available from The National Center for Career Education

Appendix B: The NCCE Mini Libraries, A Demonstration Kit, June 1979

Appendix C: "A Guide to Assessing the Needs of Your Students"

Appendix D: "Third Party Evaluation"

1.0 Acquire Materials Nationally

The acquisition of materials is an ongoing process that requires communications and reviews of existing literature to identify career education materials. Upon identification, the material is requested from the sources so identified.

To date, materials collected represent 8687 pieces of materials with a backlog of 120 boxes of materials recently received from the U.S. Office of Career Education. The specific acquisition plans are explained in 2.0 below.

The U.S. Office of Career Education designated the National Center for Career Education as the official repository for all materials received by their office. Over the months, the Office of Career Education is shipping to NCCE their entire library for processing by NCCE staff. One hundred and twenty boxes have thus far been received.

2.0 Collect and Classify Materials

The collection of instructional materials has entailed several plans being formulated and executed in acquiring materials for the clients of the NCCE training systems:

- Newsletter and media solicitation
- Contact person plan
- USOE funded project contact person
- State coordinators identification plan
- Known-materials direct request plan
- Target groups solicitation plan
- Personalized services and follow-up
- Training contact and feedback plan

- Referrals plan
- Show casing materials
- Materials exchange agreements

Each plan has its unique advantages and disadvantages, yet the quantity of materials and quality of those receipts to date are impressive considering the limited budget, manpower, and time the acquisitions have been operational in support of training.

NCCE, having collected career education material from across the country, rigorously classifies it so that it may be accessed and retrieved through the computer search process.

Building upon last year's efforts in developing a classification system, NCCE has improved the classification process and has approximately 8486 items classified as of September 15, 1979.

The Materials Classification Operations have been significantly revised based upon analysis of information derived from the planning and testing phases of NCCE's existence.

The classification manual has been thoroughly revised based upon many inputs: classifiers, users, test group recommendations, librarians, encoders, cost time analysis, and search effectiveness analysis. This revision yielded a primary manual which was converted into a classification manual. Enhancements to prior procedures also include several newly developed support products which are being utilized in classification processes.

Several new minor steps have been implemented in order to keep documents manually searchable at all stages of processing.

Another innovation to respond to user needs is a priority grid mechanism -- this grid is a dynamic prioritizing mechanism based upon user requests and feedback.

3.0 Library Materials for National Access

The National Center for Career Education, under the CEITAIMS Project, is continuing its efforts to collect, classify and store materials and thereby make the materials available to career education practitioners. The thrust of this activity is aimed toward support of training in career education curriculum design and making needed materials available to the practitioners in training.

The NCCE materials system is designed to serve as a national repository of career education materials. But the materials are not just archived; they are computer searchable to match the needs of the educators being trained. The NCCE training services exist to help the educators adapt the materials for their maximum effectiveness in classroom use.

The activities and systems in the NCCE instructional materials processes are designed to link educators/institutions and their education needs to the materials which are relevant to their needs.

The physical materials collected and stored at the National Center for Career Education represent materials from across the nation. The maintenance of the resource center involves the ongoing library management including filling requests for materials checked out, materials control and initiating duplication processing.

4.0 Provide for Access to NCCE Repository of Materials

As a service agency, the National Center for Career Education (NCCE) offers users of NCCE's library services a variety of options to assist them in identifying, accessing, and/or obtaining career education materials.

Materials identifying options available to users of NCCE's materials services include:

- custom prepared computer assisted searches for materials,
- topic catalogs of career education materials, or
- referrals to other agencies.

Materials accessing options available to users of NCCE' material services include:

- a letter, or
- a phone call, or
- personal visits to the library, or
- paritipation in NCCE's curriculum related inservice training programs.

Materials obtaining options available to users of NCCE's material services include:

- preview (loan) of any of NCCE's library materials, or
- xeroxing of non-copyright materials for permanent retention, or
- delivery of quantities of select career education materials (Mini Libraries).

NCCE's materials identifying, accessing, and delivery systems were cooperatively designed with educators' input, and pilot and field tested with educators. After four years of

experiences and three full cycles of testing and revising, NCCE offers to users the resultant library systems which are:

- sensitive to educator needs,
- easy to access,
- nationally deliverable to the local level,
- responsive,
- flexible, and
- cost-effective.

Users of NCCE's library of materials can draw from a collection of 7000+ career education programmatic materials which have been acquired from around the nation. NCCE libraries these products for nationwide sharing. Some of the materials receive computer referencing operations when they are in higher user-demand areas. Whether the materials received are computer or manually indexed, any and all of the libraried career education materials are available for access and sharing by individual users nationwide.

The materials libraried represent thousands of hours of creative effort by career educators and millions of dollars of career education development expenditures. NCCE is ready to share these ideas, practices, strategies, and findings of other career educators.

NATIONAL LENDING LIBRARY

All of the career education products that the National Center for Career Education (NCCE) has acquired from around the nation are available on a preview (loan) basis from the NCCE central library. A phone call or a letter is sufficient to initiate access to the thousands of materials already libraried

by NCCE.

Materials are typically loaned for a 30 day preview period (extensions are often and easily granted). In order to facilitate easy user examination, materials are typically delivered in hard copy or artifact format (for kits, games, etc.). In delivering these materials NCCE charges only for those expenses associated with the handling and the shipping of the materials to the requestor. The requestor is responsible for return of this loaned material.

NCCE's primary acquisition and processing priorities are for career education classroom-directed instructional materials. The majority of NCCE's library is comprised of these types of programs and practices. Typically, these materials are found to be in one of the following formats:

- teacher guides, manuals and lesson plans
- student guides, manuals, workbooks, hands-on materials, and activities
- curriculum guides, manuals, implementation strategies, and practices

Products typically contain associated sub-product sections such as:

- project profiles and setting descriptions
- administration tools
- career education goals and outcome-learning objectives for students
- curriculum organization and structures
- evaluation processes, products, or instruments
- idea lists
- suggestions and recommendations
- reference lists or bibliographies

NCCE has targeted its acquisition and processing efforts toward these classroom oriented types of materials since the majority of requests from around the nation have been for these types of materials. But NCCE also libraries many other major categories of career education related products including:

- test and evaluative products
- inservice and pre-service products
- administration products
- professional reading products
- legislative products
- State plans
- bibliographies, catalogues, and reference lists
- project reports

For vocational and technical education information and products; for research, journal literature and fugitive information and products; and for occupational information, NCCE refers the requestors to other known existing information resource centers.

PRE-PACKAGED STARTER LIBRARIES (Mini Libraries)

The National Center for Career Education currently has available some exciting career education communication products -- the NCCE Mini Libraries. In response to the many career educators who have frequently requested the delivery of a quantity of good quality career education materials, NCCE has created Mini Libraries. Each Mini Library contains approximately 2500 pages of ideas, strategies, practices, activities, methods, and suggestions for infusing career education into learning environments.

Each Mini Library contains separate career education modules

for the Basic Skills areas of:

Mathematics

Language Arts

Sciences

Social Studies, and

a Guidance and Counseling module

Mini Libraries are available for the following grade level groups:

Pre-school and primary grades	(K-3)
Intermediate grades	(4-6)
Junior/Middle School	(7-9)
High School	(10-12)

Products selected for inclusion in this first series of the Mini Libraries were assessed for such qualitative traits as:

- the documents reflect an infusionary approach to career education
- the documents are free of stereotyping vocabulary or pictures
- the documents have good reprographic qualities
- the documents are not copyright protected

Other operational features of the Mini Libraries include:

- an index is included for each of the modules
- the documents are equipped with check-in and check-out library cards and pockets
- the documents are color coded for eash re-shelving
- the libraries can be used as a free-standing professional

library for career educators or easily converted to other library systems.

Educators have field-tested the pilot-test releases of the Mini Libraries in many environments and for purposes such as:

- workshop materials
- curriculum infusion training session materials
- showcasing sample career education practices, ideas, products
- teacher awareness materials in "how to" sessions
- professional libraries for curriculum specialists and teachers to share

TOPIC CATALOGS (NCCE Indexes for Teachers)

The National Center for Career Education has frequently been requested by educators to: "Send me all the information you have about good quality materials in the area of XXXX." In response, NCCE is preparing a series of indexes for 40 different "XXXX" categories. Topic areas include: the basic skills areas of Math, Science, Language Arts, and Social Studies plus Guidance and Counseling, Consumer Education, Safety Education, Health and Physical Education, Equity Education, Occupational Awareness Education, Inservice and Pre-service training to mention a few.

Each Index contains complete descriptions of career education products, pertinent to the topic area. All materials described in each Index are available from NCCE's national lending library. By reading the product descriptions, career education practitioners can readily identify the products which

best suit their needs, and for the products they identify as worthy of further investigation, they can easily order any and all of the described products for preview.

There is no need to order and negotiate a massive catalog since the Indexes can be ordered separately. Educators and counselors find this feature appealing. For those who wish to have all of the topic Indexes, a subscription to all of the topic catalogs is also available.

COMPUTER TIE-INS TO NCCE's DATABASES

The initial concept of NCCE affiliating with ten universities around the nation demanded computer accessing of NCCE's databases from remote sites. However, outside of the affiliate centers (Universities), the concept is not well established.

Now NCCE can deliver through a computer tie-in the ability of a remote site to dial a phone call to NCCE, place the phone receiver into the coupler of a computer terminal located at the site, and gain access to NCCE's databases of career education instructional material. NCCE is prepared to assist the site in the procurement of the proper equipment, training the site personnel in searching the system, and offering continued support for the site.

Lately, there has been much interest in the information, systems and technology that NCCE has developed. Interest has been reflected by:

- Nebraska Educational Services Unit;
- Alma College, Michigan;
- Wyoming State Department;
- Colorado State Library, State Capitol;

- New York City Schools;
- Project Career Education Dissemination (CEDISS), Michigan
- Saudi Arabia Vocational Curriculum Writing Project;
- Bethel, Eugene-Springfield Oregon Teacher Center;
- Career Education Resource Center, Wheaton, Illinois
- Luverne College, California;
- S.E. Idaho Teacher Center, Twin Falls, Idaho;
- School Resource Network, Ventura, California;
- and others.

5.0 Enhance, Maintain and Modify the Existing Materials Processing and Information System

NCCE, through CEITAIMS, has enhanced its library operations and procedures again. In response to user feedback, and also to streamline already tested operations, NCCE has designed, tested, and implemented major revisions to prior operations; the new operations are termed "Prototype III". Prototype III revisions have impacted every materials processing function. The enhanced procedures have allowed for many new materials capabilities to be delivered to practitioners; most notably the new identification and materials dissemination products called NCCE Indexes for Teachers and Mini Libraries.

The Prototype III procedures have also allowed for enhancements in locating and identifying materials for Users -- both in manual methods as well as in the computer-based methods of searching materials. This is an ongoing activity.

Under CEITAIMS, materials are being assessed on a wide range of characteristics and for various levels of curriculum infusion of career education concepts. The results of the assessment process allow for top priority processions of the best documents into "Mini Libraries" for the trainers to take to their training sites as exemplary materials.

The assessment process also yields a category of documents called "Index Quality" which the trainers can use to inform the trainees of other materials, which are not in the Mini Library, but are readily available for NCCE and may well be worth investigating depending upon their needs.

Documents which are assessed positively yet are not deemed "Mini" or "Index" status are processed onto the computer based library ahead of those which are not as positively assessed.

There has been terrific response to the Mini Library concept, and very good response to the NCCE Indexes for Teachers and the new procedures have improved accuracy and exhaustiveness in the computer supplemental search services.

Each of the materials or information identifying services of NCCE has an evaluation device built in. Quality control is not only an internal process, it is also externally validated by NCCE users. Users are requested to evaluate process and product in order for NCCE to know what to change to best serve user needs.

6.0 Disseminate Bi-monthly Newsletter

NCCE has expanded its mailing list from 6400 to 8200 individuals and will continue distribution of its Newsletter to provide central information about NCCE through this vehicle. Six newsletters were sent out during the year. In addition, NCCE has chosen to pare down the Newsletter and key efforts upon specific target audiences with informal newsletter information.

Also, NCCE has expanded its Newsletter efforts in the area of news releases for publication in other newsletters to reach educators not currently served. Feature articles about the National Center for Career Education have appeared in approximately 20 national newsletters and publications, resulting in a flood of inquiries about NCCE's services. In order to respond quickly, the Center has produced a "Career Education Guide to Resources and Technical Assistance Available from the National Center for Career Education. (Appendix A)

7.0 Allow for the Dissemination of Mini-Libraries to State Coordinators of Career Education

The need to keep the State Coordinators apprised of the available materials and services of the National Center resulted in the plan to disseminate information about Mini Libraries.

The two major thrusts of this scope of work item involved: 1) the mailing of Mini Library Examination Kits to each State Director of Career Education, and 2) the attendance at National and regional state meetings where State Directors were in attendance.

Attached is a copy of a Mini Library Examination Kit used for this purpose. (Appendix B)

This year NCCE produced a second survey of all of the 50 states and U.S. Trust Territories to assess the career education resources that exist in the form of career education resource centers, exemplary career education programs and practices, and career education personnel. These 150 page guides were distributed to the State Coordinator of Career Education in every state and territory.

8.0 Maintain Systematic Dissemination of NCCE Information and Mini Libraries to other Groups

The National Center for Career Education, through the support of the project, has been able to respond to requests for information and materials. These requests were served through the types of assistance outlined in Section 4.0. This ongoing service to practitioners will continue through the duration of the project.

NCCE has produced and distributed its Mini Libraries. Over 400 Mini Library products have been shipped into 34 states and territories. Even international deliveries have been fulfilled including 10 different countries. NCCE is continuing to respond to the excitement generated by Mini I with a Mini II. Mini II subjects will broaden and enhance the range of subject areas available in Mini I to career education practitioners. Subject areas receiving attention for inclusion into Mini II include:

Special Education
Career Information
Fine Arts
Energy
Health & Physical Education
Consumer Education
Equity Education
Implementation of Career Education

9.0 Modify Existing Training Model for Application to Business, Labor, and Industry; and

10.0 Field Test Training Model

As a service agency, the National Center for Career Education is committed to being responsive to the requests and needs of its users. In order to determine appropriate services delivery models, the Center conducted user-planner meetings with State and local educators. Not only has the Center utilized this strategy for developing basic services and delivery models; but in addition, user-planner meetings are an integral part of the process of customizing these basic services and models for individual user needs and circumstances. The following outline provides an overview of the basic training models and special services currently delivered by the Center's staff. The Profiles which follow provide brief descriptions of each of the individual models and services.

Training Models

A. K-12 Models
   1. District Short and Long Range Planning Model
   2. Administrators Model
   3. Curriculum Infusion Model
   4. The Community as a Classroom Model
   5. Advisory Council Model

B. Cadre Training Model

C. Business/Labor/Industry Collaboration Model

D. CETA Models

1. Career Development Program

2. Staff Training for CETA Youth Programs

Special Services

E. Needs Assessment

F. Orientation Sessions

G. States Resources Guide

H. Intra/Inter State Materials Collection, Evaluation, and Dissemination Assistance

I. Assistance in Data Collection for Annual Federal Reports

J. Referral Services

PROFILES

A.1. District Short and Long Range Planning Model

... a one to two day workshop to assist local board members, advisory council members, administrators, and other appropriate local representatives in examining such issues as:

(a) developing a local career education policy statement

(b) needs assessment strategies and techniques

(c) identification of local priorities

(d) short term goals identification

(e) long term goal identification

(f) alternative implementation strategies

(g) implementation task identification, analysis, and responsibility assignments

(h) alternative evaluation designs

A.2. Administrative Model

... a four to five day workshop to assist district and building level administrators in:

(a) clarifying career education and its relationship to current local education programs

(b) examination of alternative implementation strategies

(c) task and function analysis in relation to specific implementation strategies

(d) role clarification and responsibility assignments in relation to task and function analysis

(e) identifying alternatives for staff development and inservice training

(f) examination of alternative methods for community involvement

(g) designing evaluation and revision systems

A.3. Curriculum Infusion Model

... an extended workshop to assist instructional guidance, and support staff in designing activities which infuse career education concepts into the current educational programs. The extended nature of the model allows for the sequential presentation and serious examination of such major components as:

(a) clarifying the definition of career education

(b) localizing the global dimensions of career education by focusing on the relationship of career education concepts to:

- local district philosophy/mission/goal statements
- an analysis of local student needs

(c) examining appropriate instructional techniques and developing instructional materials

(d) identifying and utilizing resources
- instructional materials available from NCCE and other agencies
- community sites and people-power

(e) developing sequential curricula

A.4. "The Community as a Classroom" Model

... an extension of the Curriculum Design Model which provides prior participants with an opportunity to increase their effectiveness and sophistication in the utilization of community resources. Specifically, the workshop requires participants to:

- systematically investigate a minimum of four community resources
- analyze, on a standard format, each of the resources for instructional potential
- select at least one resource and develop a major instructional unit whose activities focus on that resource.

A.5. Advisory Council Model

... a workshop designed to assist advisory council members to examine such issues as:

(a) career education and its implications for current educational programs

(b) the role and functions of an advisory council and its members

(c) alternative strategies for fulfilling roles and functions.

B. Cadre Training Model

... an intensive workshop to prepare local educators for leadership roles in the delivery of inservice training. The model includes such major components as:

(a) Curriculum Infusion Model

(b) methodology for planning and delivering inservice

(c) small group interaction techniques

(d) utilization of NCCE material services

(e) community resources

- identification
- utilization
- management

C. Business/Labor/Industry Collaboration Model

... a series of activities which link teachers and personnel from business/labor/industry as cooperative partners in the instructional process. Tangible products include both school-centered instructional units which incorporate intensive utilization of community resources and business/labor/industry presentation plans that delineate specific involvements with students. The workshop assists participants in:

(a) understanding career education and its implications for current educational practices

(b) applying career education infusion techniques

(c) clarifying the role of business/labor/industry personnel in the learning process

(d) developing, field testing, evaluating, and revising student learning activities.

Because of Mountain Bell's commitment to the support of career education implementation at the local level and the need to train its personnel on "how to" actualize this support in an effective manner, Mountain Bell has in the past worked with the National Center for Career Education in designing and delivering training programs for appropriate Mountain Bell personnel.

The model utilized during the previous year has been modified so as to improve the training received. In doing so, the NCCE staff and Mountain Bell worked to reduce the overall training time and thereby increase time available for teachers/Mountain Bell person interaction. Thus, change was predicated on the information received last year indicating that one of the more important aspects of the model was the interaction between business people and educators.

Montana Mountain Bell Telephone Company and Montana school districts in Butte, Great Falls, Helena, and Missoula collaborated on a workshop project entitled "Cooperative Design for Career Education." The Center designed and delivered the training programs.

Mountain Bell employees brought their life experiences as well as job experiences into the classrooms. Their experiences assisted the students in the "3 R's" in the learning areas of

language arts, math, science, and social studies.

Miles City, Montana, the final training site for the Cooperative Design for Career Education, was completed in the spring of 1979. The final site participants included four Mountain Bell employees, four Miles City teachers, and 104 students.

The compilation of all materials developed in this program will be delivered to Mountain Bell in September of 1979.

D.1. Career Development Program

... a guidance program to provide CETA youth with intensive experiences in career awareness and exploration. The program can be delivered either in a one-week summer retreat setting or in the regular school environment. Participants are assisted to experientially examine and clarify their career interests, goals, and future plans. Major components of the program include:

(a) self-awareness
(b) self-assessment of strengths and weaknesses
(c) decision-making
(d) problem solving
(e) communication skills
(f) occupational awareness
(g) on-site occupational exploration

The National Center for Career Education produced the Career Awareness Program (CAP) which began in April, 1978, and was successfully completed in November, 1979. The project involving 192 youngsters and 82 adults resulted in each of nine sites developing local plans for implementing comprehensive career education programs and training for CETA youth for the 1978-1979 school year.

A total of nine different Montana cities and their schools took part in the career education activities. The cities included Missoula, Helena, Butte, Kalispell, Havre, Great Falls, Miles City/Glendive, Bozeman, and Lewistown.

Each participant received seven hours of training for six days, a total of 42 hours.

Also included were community based organizations which included: Job Service, Human Resource and Development Councils, local unions and business people.

D.2. Staff Training for CETA Youth Programs

... a workshop to assist CETA staff members in planning and delivering educational and supportive services to eligible youth. Topics include such issues as:

(a) examination of the various CETA program components
(b) implications of career education for individual program components
(c) development of implementation strategies and delivery techniques
(d) design and management of work experience programs

(e) necessity and nature of local inter-agency cooperation

(f) development of a local implementation plan

E. Needs Assessment

... a process, including instrumentation, that provides states and local districts with a means of delineating and prioritizing student needs and expectations. The instruments for data collection include:

(1) career maturity inventory for students

(2) parents opinion survey

(3) school staff survey

- administrators
- counselors
- teachers

(4) business and labor survey

(5) higher education survey

Technical assistance can also be provided in computerized processing of data, tabulation, statistical reporting, and analysis.

F. Orientation Sessions

... Sessions of one day or less are available in the areas of:

(a) introduction to career education

(b) NCCE materials services

(c) orientation to any of the technical assistance programs

(d) user-planner meetings to examine, consider and/or plan for utilization of NCCE services

(e) conference key-note addresses

The National Center for Career Education has had a number of training involvements with a wide variety of individuals and organizations. Some of these include:

- Three individuals from the Fort Belknap Indian Reservation in northeast Montana were trained in the incorporation of career education into their Indian Studies Program;
- Three individuals from Great Falls Montana Public Schools were trained in the utilization of NCCE's career education instructional materials as they apply to Special Education;
- Orientation to NCCE materials and training activities were given to the entire staff and advisory board of the Western Montana Teacher Center and to the 68 Teacher Centers of the United States at their National Conference in Washington, D.C.;
- Two University of Regina, Canada, faculty were trained in the incorporation of career education into that Universities' teacher education training curriculum;
- Students at the University of Montana were trained in NCCE materials processing capabilities and orientation to career education through guest lectures by NCCE staff in twelve separate courses;

- NCCE's training and materials were an integral part of the California Work Experience Educators Master Trainer inservice in California, as well as a career education project operating out of the Northwest Connection, at the Northwest Regional Education Laboratory, in Oregon.
- During the fall of 1978, eight rural cities in Montana were trained by NCCE in the NCCE process. The audiences generally consisted of classroom teachers, many of whom responded to the training with follow-up requests for NCCE Indexes for Teachers, Mini Libraries and other assistance.
- The National Center for Career Education has been asked by the Salish Kootenia Community College (SKCC) in Pablo, Montana, to become involved in a 24 month project dealing with 150 Salish Kootenai Community College students in the delivery of career education instruction and counseling services. Specifically, this program will involve rural, isolated, low income Indian females.
- NCCE training was received by educators and administrators in American schools in Karachi, Islamabad and Lahore, Pakistan; Kabul, Afghanistan; New Delhi, India; and Kathmandu, Nepal. Materials representing four of NCCE's libraries -- 10,000 pages of career education activities -- were delivered to each American school by the Center. In addition, Dr. Barry also made two presentations to Pakistan educators in Karachi, one at the U.S. Consulate, and second at the Habib Public School.

- The Overseas School Training culminated in a training program delivered by NCCE to the Near East/South Asia Overseas Schools Conference in Athens, Greece.

11.0 Refine Needs Assessment Instrumentation that Can Be Utilized by Local Practitioners

The Needs Assessment instrument, as seen in Appendix C, was developed from those components of the training program dealing with the assessment of student needs. This instrument will be made available to educators requesting assistance in identifying students' needs. It is hoped that this instrument will result in a more effective delivery of career education to students by keying upon their needs. Because this instrument has been developed for use outside of a formal training setting, every effort has been made to make this instrument useful in a variety of settings.

12.0 Maintain the Capability to Respond to Staff Development Inservice Nationally

The National Center for Career Education has continuous requests for assistance through training. Because of the limited resources, NCCE works continuously toward building capacity to respond to these requests. The capacity building efforts resulted in the development of a master trainers model by which NCCE staff train a cadre of qualified career education personnel in the delivery of career education inservice.

In order to maintain the ability to respond to inservice, NCCE ccntinuously identifies qualified career educators who may be able to serve as consultants to the requestors. NCCE also attempts to expand its pool of qualified individuals through the training and support of existing cadres.

Through this system, NCCE has been successful in providing referrals to requesting organizations and in expanding its involvement with existing cadres.

While NCCE had five people full time on the training staff, 20 other people were hired to train for NCCE on an as-needed basis. This procedure gave the Center much more flexibility and depth than would have been possible under other circumstances.

The National Center has seventy vitae registered at the moment which represents an excellent pool of temporary and full time staff members.

13.0 Maintain Dialog with National, Regional and Multi-State Agencies

In order to keep informed of current trends in career education and to inform educators across the country of our services, it is required that the National Center for Career Education maintain a dialog with career educators nationally.

In retaining national contacts, under CEITAIMS, NCCE has been able to better respond to requests for current information and resources in career education.

Project Directors from nearly all of the approximately 80 U.S. Office of Career Education funded projects were trained in the utlization of NCCE in Washington, D. C. NCCE demonstrated the use of the computer to cross-reference the instructional material found in the NCCE Mini Libraries, but also of the utlization of a remote terminal in Washington, D.C., which could access the career education practices file on the University of Montana campus.

NCCE efforts during the year have targeted upon secondary information sources. These information agencies such as the National Diffusion Network (NDN) and the Research, Development and Utilization/Research, Development and Exchange (RDU/RDX) were contacted at the National Dissemination Forum and appraised of NCCE existence and materials capabilities.

Of specific interest is the work done by NCCE staff and the staff of Bibiolographic Research Services (BRS) in attempting to create better linkages to serve educators. In August of

1978, NCCE began negotiations with BRS in order to make NCCE's databases of career education programs and practices available to the nation from a wide variety of access sites. NCCE selected BRS of Scotia, New York, since they were the first database vendor to have the advanced search computer programs and techniques required to search NCCE's innovative databases.

BRS has recently announced a new database implementation package. NCCE could place its databases onto BRS's system for accessing by the 1800 customer-sites of BRS. Such a move would give NCCE immense national exposure.

In addition to these organizations, NCCE has met with State and National dissemination agencies including the ERIC Center for Career Education at Ohio State and New York EPSIS project which resulted in increased information exchange.

14.0 Maintain and Expand Systematic Exchange of NCCE Information And Resources with Other Dissemination Agencies

NCCE is continuing to use the information contained in other information centers to augment its coverage of career education relevant materials. For example:

- searching of ERIC, NIMIS, NICEM, NICSEM, EPSIS...
- establishing reciprocal search exchange agreements, and
- establishing product exchange agreements with Information Resource Centers

NCCE is planning on strengthening its information base and avoiding duplication by analyzing the available information alongside the NCCE information system.

NCCE is collecting information about existing systems and services and often uses this information in referring information searchers to these centers when appropriate. When these requests are found to be frequent, then NCCE has worked to formalize information sharing linkages with the appropriate agencies.

The National Center utilizes a series of methods regularly to acquaint potential users with the Center's services:

Bi-Monthly Newsletter:

information about specific materials, training programs, and current activities (circulation: approximately 8,200) is sent to various organizations, LEA's, SDE's, and individuals.

NCCE Contact-Persons:
approximately 80 individuals, representing the majority of the states, are kept abreast of NCCE activities and services and are sharing this information with educational institutions, organizations, and individuals in their geographic areas.

Meetings and Conferences:
(Attendance and Presentations) Whenever possible, NCCE staff attends and makes formal and/or informal presentations at National, regional, and state conferences. These activities generally include the educational as well as the business/industry/labor communities.

Visitations:
As NCCE staff travel around the nation they generally schedule visits with key individuals (e.g. state coordinators, LEA personnel, B/I/L personnel, etc.) to explain NCCE services and how to obtain them.

Responses to Inquiries for Assistance:
Almost daily NCCE receives requests for specific information or assistance. In addition to responding to the specific request, NCCE utilizes this opportunity to acquaint the requestor with the totality of NCCE's services.

The National Center for Career Education has continued to keep informed of the many formal and informal contact people it receives across the nation. This includes mailing updates on information to be disseminated. In additon, NCCE has

identified additional individuals by state who would be effectively utlized in the dissemination of career education information and materials. Plans will be developed to utilize these individuals.

15.0 Participate in Regional and National Conferences Related to Career Education

The National Center for Career Education has participated in many conferences of National significance.

Date	Conference/Presentation	Location
9/26/78	National Advisory Council for Career Education	Washington, D.C.
10/2/78	VIEW-regional conference of State Directors	Helena, MT
10/19/78	OCE Funded Project Director Meeting	Washington, D. C.
11/5/78	Required Hearings on Proposed Regulations of PL 95-207	Phoenix, AZ
11/15/78	State Directors Regional Conference	Salt Lake City, UT
2/12/79	American Association of School Administrators	New Orleans, LA
2/14/79	American Association of International Schools	New Orleans, LA
4/79	Computerized Guidance Systems Meeting	Pamona, CA (Cal Poly)
4/4/79	US OCE Mini Conferences Directors of CE in Western States	Los Angeles, CA
4/8/79	School Volunteers	Los Angeles, CA
4/9/79	Hosting Policy Board Mtg. of Western MT Teacher Center	Missoula, MT
6/27/79	American Assn. of School Administrators (AASA) Summer Convention	Denver, CO
6/2/79	National Teacher Center Convention	Washington, D.C.
7/23/79	Rocky Mountain Labor College	Twin Falls, ID

APPENDIX A

THE CAREER EDUCATORS'S GUIDE TO RESOURCES AND TECHNICAL ASSISTANCE AVAILABLE FROM THE NATIONAL CENTER FOR CAREER EDUCATION

THE CAREER EDUCATOR'S GUIDE TO RESOURCES AND TECHNICAL ASSISTANCE AVAILABLE FROM THE NATIONAL CENTER FOR CAREER EDUCATION

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MATERIALS RESOURCES SERVICES

Introduction

As a service agency the National Center for Career Education (NCCE) offers users of NCCE's library services a variety of options to assist them in identifying, accessing, and/or obtaining career education materials.

Materials identifying options available to users of NCCE's materials services include:

- custom prepared computer assisted searches for materials, or
- topic catalogs of career education materials, or
- referrals to other agencies

Materials accessing options available to users of NCCE's material services include:

- a letter, or
- a phone call, or
- personal visits to the library, or
- participation in NCCE's curriculum related inservice training programs.

Materials obtaining options available to users of NCCE's material services include:

- preview (loan) of any of NCCE's library materials, or
- xeroxing of non-copyright materials for permanent retention, or
- delivery of quantities of select career education materials (Mini Libraries)

NCCE's materials identifying, accessing, and delivery systems were cooperatively designed with educators' input, & pilot and field-tested with educators. After four years of experiences and three

full cycles of testing and revising, NCCE offers to users the resultant library systems which are:

- educator needs sensitive,
- easy to access,
- nationally deliverable to the local level,
- responsive,
- flexible, and
- cost-effective.

Users of NCCE's library of materials can draw from a collection of 7000+ career education programmatic materials which have been acquired from around the nation. NCCE libraries these products for nationwide sharing. Some of the materials receive computer referencing operations when they are in higher user-demand areas. Whether the materials received are computer or manually indexed, any and all of the libraried career education materials are available for access and sharing by individual users nationwide.

The materials libraried represent thousands of hours of creative effort on behalf of your peers and millions of dollars of career education development expenditures. NCCE is ready to share these ideas, practices, strategies, and findings of other career educators.

MATERIALS DELIVERY

National Lending Library

All of the career education products that the National Center for Career Education (NCCE) has acquired from around the nation are available on a preview (loan) basis from the NCCE central library. A phone call or a letter is sufficient to initiate access to the thousands of materials already libraried by NCCE.

Materials are typically loaned for a 30 day preview period (extensions are often and easily granted). In order to facilitate easy user examination, materials are typically delivered in hard copy or artifact format (for kits, games, etc.). In delivering these materials NCCE charges only for those expenses associated with the handling and the shipping of the materials to the requestor. The requestor is responsible for return of this loaned material.

What type of career educational material resources are contained in the NCCE National Lending Library? NCCE's primary acquisition and processing priorities are for career education classroom-directed instructional materials. The majority of NCCE's library is comprised of these types of programs and practices. Typically, these materials are found to be in one of the following formats:

- teacher guides, manuals and lesson plans
- student guides, manuals, workbooks, hands-on materials, and activities
- curriculum guides, manuals, implementation strategies, and practices

Products typically contain associated sub-product sections such as:

- project profiles and setting descriptions
- administration tools
- career education goals and outcome-learning objectives for students
- curriculum organization and structures
- evaluation processes, products, or instruments
- idea lists
- suggestions and recommendations
- reference lists or bibliographies

NCCE has targeted its acquisition and processing efforts toward these classroom oriented types of materials since the majority of requests from around the nation have been for these types of materials. But NCCE also libraries many other major catagories of career education related products including:

- test and evaluative products
- inservice and pre-service products
- administration products
- professional reading products
- legislative products
- State plans
- bibliographies, catalogues, and reference lists
- project reports

For vocational and technical education information and products; for research, journal literature and fugitive information and products; and for occupational information, NCCE refers the requestors seeking these types of information to other known existing information resource centers.

Pre-packaged Starter Libraries (Mini Libraries)

The National Center for Career Education (NCCE) currently has available some exciting career education communication products--the NCCE Mini Libraries. In response to the many career educators who have frequently requested the delivery of a quantity of good quality career education materials, NCCE has created Mini Libraries. Each Mini Library contains approximately 2500 pages of ideas, strategies, practices, activities, methods, and suggestions for infusing career education into learning environments.

Each Mini Library contains separate career education modules for the Basic Skills areas of:

Mathematics
Language Arts
Sciences
Social Studies, and
a Guidance and Counseling module as well.

Mini Libraries are available for the following grade level groups:

Pre-school and primary grades	(K-3)
Intermediate grades	(4-6)
Junior/Middle School	(7-9)
High School	(10-12)

Products selected for inclusion in this first series of the Mini Libraries were assessed for such qualitative traits as:

- the documents reflect an infusionary approach to career education
- the documents are free of stereotyping vocabulary or pictures

. the documents have good reprographic qualities

. the documents are not copyright protected

Other operational features of the Mini Libraries include:

. an index is included for each of the modules

. the documents are equipped with check-in and check-out library cards and pockets

. the documents are color coded for easy re-shelving

. the libraries can be used as a free-standing professional library for career educators or easily converted to other library systems

Educators have field-tested the pilot-test releases of the Mini Libraries in many environments and for purposes such as:

. workshop materials

. curriculum infusion training session materials

. showcasing sample career education practices, ideas, products

. teacher awareness materials in "how to" sessions

. "road show" carry along products

. professional libraries for curriculum specialists and teachers to share

MATERIALS IDENTIFICATION PRODUCTS/SERVICES

Topic Catalogs (NCCE Indexes for Teachers)

The National Center for Career Education (NCCE) has frequently been requested by educators to: "Send me all the information you have about good quality materials in the area of XXXX." In response, NCCE is preparing a series of indexes for 40 different "XXXX" categories. Topic areas include: the basic skills areas of Math, Science, Language Arts, and Social Studies plus Guidance and Counseling, Consumer Education, Safety Education, Health and Physical Education, Equity Education, Occupational Awareness Education, Inservice and Pre-service training to mention a few.

Each Index contains complete descriptions of career education products, pertinent to the topic area. All materials described in ea Index are available from NCCE's national lending library. By reading the product descriptions, career education practitioners can readily identify the products which best suit their needs, and for the products they identify as worthy of further investigation, they can easily order any and all of the described products for preview.

There is no need to order and negotiate a massive catalog since the Indexes can be ordered separately. Educators and counselors find this feature appealing. For those who wish to have all of the topic Indexes, a subscription to all of the topic catalogs is also available.

Custom Computer Search Service

The National Center for Career Education (NCCE) has again enhanced its classification and information and storage retrieval systems during this last year to bring educators responsive and accurate identification of materials that fit users needs. One of the major reasons why NCCE's computer based search and retrieval system is so accurate and responsive is because NCCE designed its systems based on practitioners' requests and their need for quick, accurate and efficient response. NCCE staff is the first to know if things do or don't work in the storage and retrieval systems. Since NCCE's system is very flexible, any required modifications to the system can and have been performed.

Even though the storage and search systems were designed to serve NCCE's trainers and trainees, the service is made available to users outside of NCCE's training programs. A phone call or a letter is all that is needed to initiate a custom prepared computer search. For those requestors who feel comfortable with search preparation instruments, NCCE will send search request packets for them to use at no expense. Users of NCCE's custom prepared search services are not required to negotiate a thesaurus. Users need only be able to state their needs in their own language. The staff of NCCE will prepare the search strategy and formulate the proper descriptions and phrases for the computer. The user's only responsibility is to communicate the salient points of their needs and NCCE will do the rest.

Response is quick at NCCE. Search results are typically in the mail within 48 hours of receipt. Rush searches can even be processed over the phone, and include materials ordering from

the search results, thereby allowing same-day shipping of the material identified by the search.

Satisfaction is assured; NCCE offers 100% refund if users are not satisfied with the results. If NCCE comes up empty on a search - no charge.

If NCCE recognizes other information systems that may be appropriate, NCCE will refer users to those other systems. And if NCCE finds that the users can possibly be served by a NCCE Index for Teachers or prior search results, NCCE will inform the requestors of these lower-cost alternatives.

On-Line Access Services

After four years of nationwide experiences with thousands of educators, NCCE and its users have determined that NCCE's databases and retrieval systems are now ready for release to a controlled number of access sites. This controlled release is the final test of the system's transportability prior to expanding accessing nationwide.

This accessing expansion program is a package release that can include for each expansion site:

- on-site training of site supervisory and operations personnel (beginning, intermediate, or advanced levels)
- manuals and reference aids
- a portable, hard-copy computer terminal
- access rights to the NCCE databases
- a library of documents that match the contents of the databases being searched

- manual accessing and control documents and products
- on-line ordering of documents and products (for preview and replacement documents plus other associated operational supplies)
- the first 100 searches at no charge
- a personal account manager to call/write for problem resolution.

NCCE recognizes that custom configuring of the above features to fit the needs of each site is essential and, therefore, will be negotiated on a case-by-case basis. NCCE will even negotiate implementing the databases and software on the expansion site's computer if user's needs and capacities exist.

TECHNICAL ASSISTANCE

Introduction

As a service agency the National Center for Career Education is committed to being responsive to the requests and needs of its users. In order to determine appropriate services delivery models, the Center conducted user-planner meetings with State and local educators. Not only has the Center utilized this strategy for developing basic services and delivery models; but in addition, user-planner meetings are an integral part of the process of customizing these basic services and models for individual user needs and circumstances. The following outline provides an overview of the basic training models and special services currently delivered by the Center's staff. The Profiles Section (13-20) provides brief descriptions of each of the individual models and services.

Training Models

A. K-12 Models
   1. District Short and Long Range Planning Model
   2. Administrators Model
   3. Curriculum Infusion Model
   4. The Community as a Classroom Model
   5. Advisory Council Model

B. Cadre Training Model

C. Business/Labor/Industry Collaboration Model

D. CETA Models
   1. Career Development Program
   2. Staff Training for CETA Youth Programs

Special Services

E. Needs Assessment

F. Orientation Sessions

G. States Resources Guide

H. Intra/Inter State Materials Collection, Evaluation, and Dissemination Assistance

I. Assistance in Data Collection for Annual Federal Reports

J. Referral Services

PROFILES

A.1. District Short and Long Range Planning Model

... a one to two day workshop to assist local board members, advisory council members, administrators, and other appropriate local representatives in examining such issues as:

(a) developing a local career education policy statement
(b) needs assessment strategies and techniques
(c) identification of local priorities
(d) short term goals identification
(e) long term goal identification
(f) alternative implementation strategies
(g) implementation task identification, analysis, and responsibility assignments
(h) alternative evaluation designs

A.2. Administrative Model

...a four to five day workshop to assist district and building level administrators in:

(a) clarifying career education and its relationship to current local education programs
(b) examination of alternative implementation strategies
(c) task and function analysis in relation to specific implementation strategies
(d) role clarification and responsibility assignments in relation to task and function analysis

(e) identifying alternatives for staff development and inservice training

(f) examination of alternative methods for community involvement

(g) designing evaluation and revision systems

A.3. Curriculum Infusion Model

...an extended workshop to assist instructional, guidance, and support staff in designing activities which infuse career education concepts into the current educational programs. The extended nature of the model allows for the sequential presentation and serious examination of such major components as:

(a) clarifying the definition of career education

(b) localizing the global dimensions of career education by focusing on the relationship of career education concepts to:

- local district philosophy/mission/goal statements
- an analysis of local student needs

(c) examining appropriate instructional techniques and developing instructional materials

(d) identifying and utilizing resources

- instructional materials available from NCCE and other agencies
- community sites and people-power

(e) developing sequential curricula

A.4. "The Community as a Classroom" Model

... an extension of the Curriculum Design Model which provides prior participants with an opportunity to increase their effectiveness and sophistication in the utilization of community resources. Specifically, the workshop requires participants to:

- systematically investigate a minimum of four community resources
- analyze, on a standard format, each of the resources for instructional potential
- select at least one resource and develop a major instructional unit whose activities focus on that resource.

A.5. Advisory Council Model

... a workshop designed to assist advisory council members to examine such issues as:

(a) career education and its implications for current educational programs

(b) the role and functions of an advisory council and its members

(c) alternative strategies for fulfilling roles and functions.

B. Cadre Training Model

... an intensive workshop to prepare local educators for leadership roles in the delivery of inservice training. The model includes such major components as:

(a) Curriculum Infusion Model

(b) methodology for planning and delivering inservice training

(c) small group interaction techniques

(d) utilization of NCCE material services

(e) community resources

- identification
- utilization
- management

C. Business/Labor/Industry Collaboration Model

... a series of activities which link teachers and personnel from business/labor/industry as cooperative partners in the instructional process. Tangible products include both school-centered instructional units which incorporate intensive utilization of community resources and business/labor/industry presentation plans that delineate specific involvements with students. The workshop assists participants in:

(a) understanding career education and its implications for current educational practices

(b) applying career education infusion techniques

(c) clarifying the role of business/labor/industry personnel in the learning process

(d) developing, field testing, evaluating, and revising student learning activities.

D. CETA Models

D.1. Career Development Program

... a guidance program to provide CETA youth with intensive experiences in career awareness and exploration. The program can be delivered either in a one-week summer retreat setting or in the regular school environment. Participants are assisted to experientially examine and clarify their career interests, goals, and future plans. Major components of the program include:

(a) self-awareness

(b) self-assessment of strengths and weaknesses

(c) decision-making

(d) problem solving

(e) communication skills

(f) occupational awareness

(g) on-site occupational exploration

D.2. Staff Training for CETA Youth Programs

... a workshop to assist CETA staff members in planning and delivering educational and supportive services to eligible youth. Topics include such issues as:

(a) examination of the various CETA program components

(b) implications of career education for individual program components

(c) development of implementation strategies and delivery techniques

(d) design and management of work experience programs

(e) necessity and nature of local inter-agency cooperation

(f) development of a local implementation plan.

E. Needs Assessment

... a process, including instrumentation, that provides states and local districts with a means of delineating and prioritizing student needs and expectations. The instruments for data collection include:

(1) career maturity inventory for students

(2) parents opinion survey

(3) school staff survey

.administrators

.counselors

.teachers

(4) business and labor survey

(5) higher education survey

Technical assistance can also be provided in computerized processing of data, tabulation, statistical reporting, and analysis.

F. Orientation Sessions

... Sessions of 1 day or less are available in the areas of:

(a) introduction to career education

(b) NCCE materials services

(c) orientation to any of the technical assistance programs

(d) user-planner meetings to examine, consider and/or plan for utilization of NCCE services

(e) conference key-note addresses.

G. States Resources Guide

... an annually revised document, based on information provided by state coordinators, which assists in identifying potential resources from across the nation. The information is organized around the categories of:

(a) personnel

(b) exemplary programs

(c) resource centers

This document is disseminated to all state coordinators and is available to local districts through the Office of the State Coordinator of Career Education.

H. Intra/Inter-State Materials Collection, Evaluation, and Dissemination Assistance

... NCCE is willing to negotiate agreements with individual and/or groups of states to serve as the collecting, evaluating, disseminating agent for the projects producing materials devoid of sex biasing and stereotyping thus relieving state agencies and local districts of this time and resource consuming responsibility. With NCCE's experience and expertise in the materials field, the required compliances could be adhered to with greater efficiency.

I. Assistance in Data Collection for Annual Federal Reports

... NCCE can provide technical assistance in designing and operating information record-keeping systems to assist career education coordinators in managing their projects. The information systems can also facilitate in the preparation of reports which are required annually by the federal legislation.

J. Referral Services

... As a result of NCCE's national involvement, the staff is often aware of many technical assistance resources from across the nation. Requests for information about needed technical assistance are carefully considered before recommending possible alternatives. NCCE welcomes the opportunity to link requestors with appropriate agencies who provide quality services.

APPENDIX B

THE NCCE MINI LIBRARIES

A DEMONSTRATION KIT

JUNE 1979

THE NCCE MINI LIBRARIES

A DEMONSTRATION KIT

JUNE 1979

THE NATIONAL CENTER FOR CAREER EDUCATION
NCCE
At the University of Montana

P. O. Box 7815

Missoula, Montana 59807

(406)243-5262

Dr. Vince Barry, Director

DISCRIMINATION PROHIBITED

Title VI of the Civil Rights Act of 1964 states: "No person in the United States shall, on the ground of race, color or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance." Title IX of the Education Amendments of 1972, Public Law 92-318, states: "No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance." Therefore, career education projects supported under Sections 402 and 406 of the Education Amendments of 1974, like every program or activity receiving financial assistance from the United States Department of Health, Education, and Welfare, must be operated in compliance with these laws.

DISCLAIMER

The material in this publication was prepared pursuant to, or in conjunction with, a grant or contract from the Office of Education, United States Department of Health, Education, and Welfare. However, points of view or opinions expressed do not necessarily represent policies or positions of the Office of Education.

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WHY A NCCE MINI LIBRARY?

It has been demonstrated that where career education materials are made available to teachers and curriculum coordinators, career education activities abound. For that reason, NCCE feels that the availability of the finest career education materials is important to the learners of the nation and to the growth, acceptance and understanding of the concept of career education.

During the past four years, NCCE has been fortunate to acquire from career education projects nationwide, approximately 7000 pieces of library materials. NCCE staff has assessed this collection of materials, divided the material into groups according to grade level and instructional area, and now has available to you NCCE Mini Libraries of among the best of NCCE's career education classroom instructional material.

By "the best" we mean this: in order for a piece of material to be a candidate for inclusion in a NCCE Mini Library, it must:

- show ways to infuse career education concepts into INSTRUCTION, through suggested activities, ideas or readin
- be relatively free of bias or stereotyping;
- have good xeroxgraphic quality (reproduce well);
- be teacher-prepared/useable and classroom-directed;
- demonstrate that career education is not an "add on" by integrating career education into subject areas;
- contain goals and objectives;
- be adaptable for special populations, such as the handicapped, gifted, hard-to-reach-youth, minority groups, women's groups, adult students, etc.

WHAT IS A NCCE MINI LIBRARY?

A NCCE Mini Library is a library of instructional material. It is a collection of approximately 2500 pages of teacher prepared/teacher useable material. Four different NCCE Mini Libraries are available at this time. They are:

- The NCCE Mini Library for Primary Grades K-3
- The NCCE Mini Library for Intermediate Grades 4-6
- The NCCE Mini Library for Junior/Middle Grades 7-9
- The NCCE Mini Library for Senior High Grades 10-12

Each NCCE Mini Library contains instructional material for the basic skills areas of math, social studies, science, language arts, and guidance & counseling.

Each piece of material in a NCCE Mini Library averages 50 pages in length.

HOW IS THE NCCE MINI LIBRARY ORGANIZED?

Each NCCE Mini Library is made up of five modules, one for each instructional area. Each module contains the materials appropriate to that module. Each module is clearly labeled with its appropriate instructional area and grade level. Each module is color coded with a colored dot, and the materials belonging in each module are color coded accordingly.

HOW CAN THE NCCE MINI LIBRARIES BE UTILIZED?

If your staff is made aware of the presence of the NCCE Mini Libraries, they can use them like students use their library, by checking out books for a maximum length of time and returning them properly. All of the materials in the NCCE Mini Libraries are non-copyright, so any borrowers can duplicate pages for their own use. All NCCE Mini Library materials arrive equipped with a pocket and a prepared check-out card to aid the borrowing procedure.

WHO SHOULD HAVE WHICH NCCE MINI LIBRARY?

A K-8 School should have three NCCE Mini Libraries; a Primary, an Intermediate and a Junior NCCE Mini Library.

A K-6 School should have two NCCE Mini Libraries; a Primary and an Intermediate NCCE Mini Library.

A Junior/Middle School should have a Junior NCCE Mini Library.

A Senior High School Grades 9-12 should have a Junior NCCE Mini Library and a Senior NCCE Mini Library.

A Senior High School Grades 10-12 should have a Senior NCCE Mini Library.

A Curriculum Coordinator should have access to all four NCCE Mini Libraries.

A Special Education Instructor/Coordinator should have access to the NCCE Mini Library best suited to the special population(s) served.

WHERE IS THE BEST PLACE TO DISPLAY A NCCE MINI LIBRARY?

If your building has a professional reading room, that would be a good place to put your NCCE Mini Library. The

Teacher's Lounge would be another choice, maybe even a corner of your regular student library. Wherever the NCCE Mini Library is displayed, the teachers and administrators and counselors must be made aware of its presence.

HOW MUCH DOES A NCCE MINI LIBRARY COST?

Based upon NCCE's latest cost recovery schedules, it currently costs NCCE $125.00 to identify, assess, duplicate, package, and ship one Mini Library. Only these operational and assembly expenses are being passed on to the recipient. There is no charge for the material per se.

The Family - Home - Community Project
Community Guide

9th Grade

Robbinsdale Area Schools
Independent School District 281
August, 1974

Developed by the Hosterman Junior High School Interdisciplinary Career Development Committee:

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Funded as a Joint Project of the Minnesota Environmental Sciences Foundation, Inc., and Independent School District 281

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EXPLANATION

This is the third curriculum published by the Hosterman Junior High School staff.

The first units are concerned with the development of a Family Model, introduced to the students in grade seven. It concerns itself with family communications, sociology, values, and "Who Am I?"

The eighth grade interdisciplinary units increase the student's career awareness, not only through field trips, films, and reference materials, but also by offering the opportunity to talk with the many employed persons who are directly involved in the building of houses. Lifestyles of these people, as well as the lifestyles of families choosing varieties of dwellings, are explored. The units are based on the Home Model.

These ninth grade units include the building of a house to scale and interdisciplinary activities to locate the family and the home in a simulated community. Facets of community lifestyles and community functions make up this curriculum.

INTRODUCTION

To help students deal with their feelings of being "left out" of school and community functions, we have attempted to build into our ninth grade curriculum a knowledge of the channels of influence within a simulated and real community. Students need to be helped to identify these channels and understand how each operates.

To achieve this awareness and encourage participation on the part of our students, we have developed activities that revolve around a community simulation game.

The advantages of the community simulation approach are numerous. As a teaching strategy, simulation games are effective vehicles for the teaching of process understandings and skill objectives. Simulation games develop student motivation toward learning by allowing students to interact on a physical as well as mental level with other students, the curriculum, and the teacher. The simulation game approach also develops motivation by engaging the student in relevant decision-making in a competitive atmosphere.

Student motivation is further increased due to learning skills and understanding processes used in the real world. Student attitudes toward school, subject matter, self, and the community are improved by the realization that he or she can be effective in the economic, social, and political areas of the community. Utilizing community simulation as a vehicle for career development encompasses a broad range of career exploration within the community setting.

Without a developing self-awareness, an understanding of optional lifestyles, and a knowledge of career choices and their effects (all part of career education), the development of personal, social, economic, and political efficacy cannot be achieved. Consequently, career education is not viewed as a clumsy addition to the community involvement project, but rather is viewed as an integral component vital to the accomplishment of this program's objectives.

GENERAL CONTENT OBJECTIVES

1. Human beings form communities to meet common needs for economic rewards, social interaction, and aesthetic development.

2. A community's development is affected by technological knowledge, cultural values, material environment, and population growth.

3. Because a person's lifestyle represents the individual's unique combination of material, pecuniary, and psychic desires, there are many differing lifestyles which can develop within a complex urban environment.

4. In an attempt to maximize the benefits of urban living, individuals can operate collectively to establish rules and institutions.

5. The complex nature of the urban environment creates numerous occupational opportunities.

GENERAL SKILL OBJECTIVES

1. The program gives the student the opportunity to learn and practice personal skills necessary to be an effective member of the community.

2. The program gives the student the opportunity to develop and use specific problem solving techniques.

3. The program gives the student the opportunity to evaluate a variety of types of information dealing with government, products, and social institutions by following a systematic procedure.

4. The program gives the student the opportunity to expand his/her interpersonal skills within the school and community setting.

5. The program gives the student the opportunity to develop strategies for obtaining information regarding time use decisions (occupations, leisure time, volunteer).

GENERAL ATTITUDE OBJECTIVES

1. The student will develop an increased sense of control over the development of his/her community.

2. The student will develop an increased sense of empathy for the various roles portrayed in his/her community.

3. The student will become more comfortable with urban change and uncertainty because of personal input potential.

4. The student will recognize the interdisciplinary nature of the urban decision-making.

GENERAL ATTITUDE OBJECTIVES

5. The student will recognize the importance of the variety of occupations needed to satisfy the many personal needs within the urban community.

6. The student will develop an attitude of assessment toward community agencies and services.

THE COMMUNITY MODEL

YOUR TOWN, U.S.A., POPULATION 30,000

Location

It is a suburb bordering an urban area. There are no defined business districts, but it contains or is near several shopping complexes. It includes an industrial park and scattered small manufacturing and business concerns. Of the private land available, 30 percent is zoned for commercial light and heavy industrial use, 20 percent residential zoning for multiple dwellings, and 50 percent for single unit dwellings. 20 percent of the total land area is publicly owned.

Schools

This community is one of three in a consolidated school district. The community has public, parochial, and private schools. One of the public high schools is a vocational technical school.

Medical

Local clinics within the community provide most medical needs and hospital services are nearby. There are three nursing homes in the area.

Transportation Facilities

Major trunk highways, interstate, county, and municipal highways are all in good repair. There is a metropolitan bus service, while railroad services exists for freight only.

Parks, Libraries, and Recreation

The community has neighborhood parks with full winter and summer recreational facilities and programs. A branch of the county library is located in the community. There are two bowling alleys, one motion picture theater, and various quick order and family restaurants.

City Government, Police, and Fire Departments

The community mayor or village-manager and council type government is elected every two years. The fire department is volunteer except for the chief and two assistants, and the police force has 30 officers.

Sociological Data

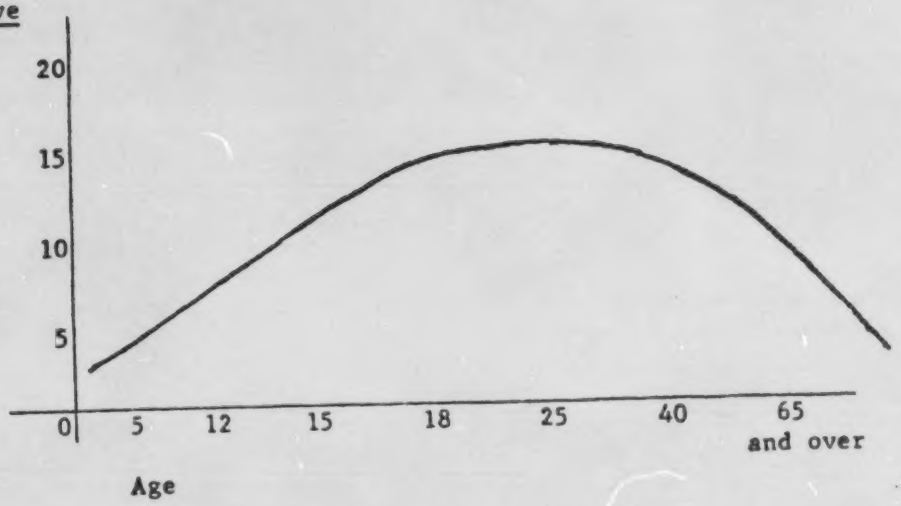
The family model represents the average age, income, and lifestyle for this community.

Racial Balance

The population of this community is 95 percent Caucasian, three percent Afro-American, and two percent Indian, Oriental, or Mexican-American.

THE COMMUNITY MODEL

Demographic Curve



Churches

All major faiths are represented.

Topographical Features

Land contour: in the northeast quadrant are gently rolling hills which taper off toward the southwest, where the land is generally flat. Originally it was an eastern hardwood forest until European settlement and farming came. When the suburb was incorporated, surrounding farmland gradually turned into housing sub-divisions. There are two lakes within the community: Lake Zingy, 300 acres, and Lake Minny, 150 acres. One stream, Helling Creek, originates in Lake Zingy and flows into the Mississippi River.

HOME MODEL

The family is probably able to build about a $31,000 three-bedroom rambler.

Taking into account the family's income and a general "rule of thumb" of 2½ times the yearly income, the family should be able to afford a house in the lower $30,000 bracket.

SEQUENCE OF EVENTS

SOCIAL STUDIES

PHASE I

Location of Community and Lifestyles Within the Community

1. Development of map skills
2. Study of inter- and intraurban geography
3. Selection of community simulation site
4. Simulation game instructions
5. Individual role identification

PHASE II

Analysis and Development of Individual Roles Within the Community

Development of elective areas

Business/ Real Estate	Banking	Concerned Citiz
Background information and organization		1. Establishm of a gover 2. Elections

PHASE III

Mechanics of the Community

1. Job applications and interviews, secure employment
2. Secure loans, open checking and savings accounts
3. Obtain housing (rent/buy)
4. Finish business organization
5. Initial community planning and zoning

PHASE IV

Personal and Institutional Daily Transactions

1. Personal budgeting and financial decision-making
2. Development of community services and institutions
3. Concerned citizen action proposals
4. Correlation of roles and institutions betwee real and simulated community

PHASE V

Final Debriefing

Evaluation of strategies

ENGLISH-SPEECH

PHASE I

1. Exploration of individual and community lifestyles and values

PHASE II

1. Learning business and legal language
2. Understanding business forms
3. Petition process
4. Dealing with stress and conflict situations

PHASES III and IV

Manipulation of communications media and advertising strategies

SEQUENCE OF EVENTS

ATH

PHASE I
1. Personal business and finance
2. Financial institutions (model bank initiated)

PHASE III
1. Taxes (personal and real estate)
2. Opinion survey techniques
3. Rent/owning comparison

PHASE IV
1. Insurance (home, life, business, and auto)
2. Installment buying
3. Investment

IENCE

PHASE I
1. Water treatment and recycling
2. Food additives

PHASE II
1. Simulation of pollution problems within the community
2. Paper recycling
3. Electrical power alternatives

PHASE III
1. Solar energy
2. Efficiency of energy conductors

PHASE IV
1. Alternatives to food preservatives
2. Home water treatment (softeners and fluoride)

NDUSTRIAL ARTS

PHASE I
Home site selection

PHASE II
1. Awareness of construction occupations
2. Architectural drafting of home

PHASE III
1. Construction of home model
2. Organization of newspaper publishing

PHASE IV
1. Operation of printing shop
2. Media manipulation

ME ECONOMICS

PHASE III
Consumerism: comparative shopping, kinds of credit, purchasing, strategies

PHASE IV
Interior landscaping (plants, plant maintenance, terrariums)

SEQUENCE OF EVENTS

ART

PHASE I — Map making-cartography

PHASE II
1. Renovation of business district
2. Exploration of cultural opportunities

PHASE III — Exploration of nationalities and social groups

COUNSELORS, ADMINISTRATORS, AND SOCIAL WORKERS

PHASE I
1. Mental hygiene
2. Awareness of public health, safety, and welfare services

PHASE II
- Simulated community government (student council)
- Special resource people to students and teachers

INFORMATIONAL NOTE TO ALL DISCIPLINES

The organization of the community simulation game as described throughout this booklet developed because of two unique factors found in the pilot school. The first factor was the development by the ninth grade social studies staff of a unit stressing community planning and personal economics roles. The second factor was the preferential scheduling given this unit.

During the use of the materials found in this booklet, is is expected that the importance of each discipline area would increase until each discipline reaches a co-equal position.

Because of the central position social studies holds in this booklet, it is suggested that all teachers review the social studies materials for background information.

The booklet contains an organizational schematic which could allow for other disciplines to assume the central role for the simulated community involvement unit. Many activities described in this booklet are interdisciplinary. This adaptability of interdisciplinary activities makes it possible for any discipline area to use the booklet without the cooperation of the other discipline areas. It should be stressed, however, that as more discipline areas are incorporated, the simulated community becomes more realistic. As realism and interdisciplinary involvement increase, the instructional objectives of the community involvement unit are better achieved by students of varying needs and interests.

There is a debriefing section available for use by all discipline areas. It is located at the conclusion of the social studies activities. Modifications of the questioning strategies are left to the discretion of each teacher.

B. Upon completion of the chemicals found in the food activity, assign the students the task of observing the effects of selected chemical preservatives upon living things. This research should take the form of library studies, interviews with chemists and physicians, or actual experimentations with plants and animals.

The students' research should include the following information:

1. Level of preservative in food
2. Dangerous levels of preservatives
3. Physical effects of preservatives (if any)
4. Synergenic effects of preservatives
5. Other uses of chemicals found in preservatives

The results of the students' research should be presented to the class as bulletin boards, oral presentations, or written reports.

Activity II Swimming Pools

A. The instructor should invite a resource person to explain to the class what chemical restrictions are placed on public swimming pools and the reasons for these restrictions. Such resource people could include the school custodian in charge of the school pool, local pool directors, state inspectors, and local governmental officials.

B. A sample of water from a local swimming pool could be obtained. Test the sample for (a) water clarity, (b) chlorine content, (c) PH level.

C. Have the students test other samples of water such as tap water, stream or lake water, rain water, and distilled water. The samples should be unlabeled to avoid student pre-judgment.

D. Have the students choose one of the above samples and, using the necessary chemicals, alter the water to meet the standards explained by the resource person.

Materials needed: pool testing kits or silver nitrate, pool chemicals, and filter paper.

Activity III Street Slush

This activity is designed to relate the use of certain chemicals to the winter needs of the community.

A. Obtain a sample of winter street slush. (The teacher may want to obtain this when available and save for this experiment.) Have the students test the water for salt using silver nitrate to detect the chlorine. A flame test could be used for calcium and sodium.

B. To understand the effect of salt on ice and snow, the students should take the temperature of a mixture of ice and water. The temperature

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B. To understand the effect of salt on ice and snow, the students should take the temperature of a mixture of ice and water. The temperature

should be taken again after salt has been added. After this experiment, the teacher may want to discuss student conclusions.

C. Finally, the students should test the effects of salt on various metals. The teacher should conclude this experiment with a discussion of the proper care of metals and the most corrosive-free materials to be used on areas accessible to salt such as cars and home water softeners and pipes.

The following activities are to be used with Phase II to acquaint the students with the roles within the community.

PHASE II

Activity I Recycling

Materials needed for this activity include newspapers, mixing bowl, 1 cup of wallpaper paste or starch, window screen, an 11" x 8"x 2" pan (or larger), wax paper, roller (a jar or beaker will do), a mixing stick, and a measuring cup.

Tear one page of the newspaper into very small pieces and place in the bowl and add two cups of water. Let this soak for a few minutes. Stir in the water-paper mixture until the paper is broken into oat-sized pieces. At this point, add about 2 tablespoons of wallpaper paste or starch and mix. Place the window screen over the pan and pour the paper mixture onto the screen. Cover the mixture with wax paper and roll it smooth. Let the mixture dry. This may take as long as two days. The result should look and feel like gray cardboard.

Activity II Power Plants

People have a critical need for energy. Many communities in the nation are currently weighing the benefits and the disadvantages of nuclear fuel and fossil fuel power plants in relation to their community's needs. The objective of this activity is to acquaint students with fossil fuel and nuclear power plants. Other alternatives such as solar energy will be explored later.

A. The instructor should begin this activity by obtaining a hand generator and explaining how it works. The instructor may wish to present various simple experiments utilizing the generator such as having the students hold hands firmly in a chain with the end students each holding terminals. The instructor should explain how the generator has been made as well as how it produces electricity.

B. Divide the class into groups of four. Each group is to determine three methods of turning some kind of generator to produce electricity. Typical sources of energy may include water, steam, animal power,

gasoline engine, wind, hot air currents. After the students have brainstormed, the teacher should bring the class together and list on the board and discuss possible energy sources.

C. Discuss the advantages of each of these methods of turning the generator. Which would be most practical? The most expensive? The least polluting? Which do the students think might be the most common in this country? (80 percent in U.S. is steam power, 17 percent of the electricity in the U.S. is from hydroelectric plants, and 3 percent from all other methods.)

D. Since steam-electric powered plants are currently most numerous in the United States today, it is necessary to understand how they work. The instructor may want to use the following diagrams on a transparency to look at the fossil fuel power plant, the nuclear power plant (boiling water reactor), and the nuclear power plant with a pressurized water reactor. (See Appendix 1.)

Activity III Water Treatment

A. This activity deals with water treatment for human consumption. The teacher should invite a speaker from a local or state governmental agency to explain what must be done with various water supplies to make them legally acceptable for human consumption.

B. Students could conduct this model water filter experiment. The materials needed include: a two quart plastic container and cap (with bottom cut out); pebbles and gravel; coarse sand; fine sand; and a ring stand.

C. Use a sharp tool to put holes about 1/16 inch in diameter in the container cap, make as many holes as is convenient. Place the cap on the jug and invert it.

D. Place the jug on the ring stand and begin preparing the filter bed by putting a few pebbles in the neck of the jug. Add about 2 inches of gravel, 2 inches of coarse sand, and finally 2 inches of fine sand.

E. With a white bowl under the cap of the jug, pour various samples of water through the model filter bed.

Some suggestions for water samples are: muddy water, dish water, bath water, and coffee. As an alternative filter material, activated charcoal, diatomaceous earth, and spun polyester filtering material could be used.

Activity IV Decomposition

The experiment in this activity is designed to remain in the classroom for one to two months.

A. Begin by inviting a speaker from a state or local governmental agency to discuss the treatment and disposal of sewage.

B. A class experiment on the decomposition of solids in soil can be used at this point. Materials needed include a large, deep tray (about 24" x 18" x 4"), soil to fill the tray, samples of solids which should be small, thin, and should include biodegradable and non-biodegradable items such as aluminum foil, paper towel, newspaper, wool, cotton, nylon, plastic, toilet paper, banana peel, apple peel, potato chips, bread crust, or potato peel.

   Place about 1½ to 2 inches of moist soil in the tray. Place the solid samples in the tray, noting their locations. Cover the articles with 1½ to 2 inches of moist soil. Add a little water every day for 30 to 40 days. After this period of time, uncover a few samples to see what decomposition has taken place. If the teacher feels that enough decomposition has taken place, uncover the remaining samples. If not, cover those checked and wait longer.

C. The teacher may wish to conclude this activity with a discussion of biodegradable materials.

Activity V Air Pollution

A. Many students will be planning businesses and manufacturing concerns in their social classes. All students creating such businesses should have their science teacher or a student government board with a science teacher serving as a consultant approve their emission control devices before they begin operation.

B. The purpose of this activity is to build a model smoke trap. The materials needed include a ring stand, cardboard tube from paper towels, a 6" x 6" piece of aluminum foil, two toothpicks or wooden match sticks, rubber bands, 1 coil (model "T" type), 1 coil of bell wire, a 6-volt battery, 1 roll of electrical tape.

   To begin this activity, wrap the aluminum foil around the cardboard tube about one inch from the end of the tube and secure it. Remove about six inches of insulation from a piece of wire about three feet long and wrap the bared wire around the foil approximately halfway up the tube, securing it tightly. Insulate the rod of the ring stand by wrapping it with tape or sliding a rubber tube over it.

   Secure the cardboard tube to the ring stand in such a manner that it is about four inches above the base of the stand. Rubber bands may be used here. Remove seven inches of insulation from about three feet of wire and suspend the wire in the tube with toothpicks as supports. Keep the wire snug and in the center of the tube as much as possible. Complete the connections as shown in the drawing in Appendix 2.

   To operate the smoke trap, place a smokey flame under the tube. After

smoke begins to come out of the tube, close the knife switch. Damp newspapers or an incense burner are good sources for smokey fires.

Activity VI Simulation Games

There are several science oriented classroom simulation activities that could be used successfully at this point to expose students to the environmental effects of community services. Smog and Dirty Water are both games that we recommend to be used in the classroom. These games have been published by Urban Systems, Inc., 1033 Massachusetts Avenue, Cambridge, Massachusetts, 02138.

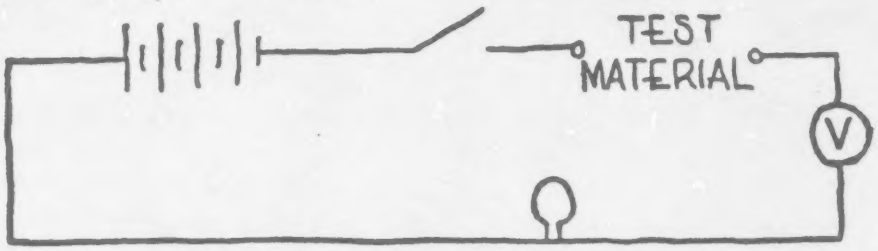
PHASE III

Activity I Conductors and Non-conductors

The purpose of this activity is to acquaint the student with the ability of various materials in his community to conduct electricity.

For this activity the following materials will be needed: a 6-volt battery, bell wire, knife switch, small light bulb and receptable, DC volt meter, a board with two connecting terminals, a beaker and cover that will allow for connecting two metal strips, a collection of materials to test for their ability to conduct electricity such as copper, dry cotton, wet cotton, aluminum, tap water, distilled water, paper, dry wood, wet wood, and leather.

Set up the circuit as shown:



Place each test material in the circuit and record the volt meter reading. Rank the test materials in order from best conductors to poorest conductors, placing non-conductors last on the list.

In their lab groups students should brainstorm as to why some conductors are better than others.

Activity II Solar Energy

A. To examine alternative sources of energy, the instructor could contact a resource speaker from Honeywell to discuss solar energy and its uses. The teacher may write to Honeywell, Inc., 2701 4th Avenue South, Minneapolis, Minnesota 55408.

B. There currently are experimental stations throughout various communities working with solar energy. The instructor may wish to contact such places for field trips and technical information. In the Minneapolis-St. Paul area one such experimental station is located at North View Junior High School in the Osseo Independent School District 279.

Activity III Model Community

For extra credit a student may construct to scale a model community. Students should wire this model tracing the circuit from the power plant to the eventual consumer.

PHASE IV

Activity I Alternatives to Preservatives

A. At issue today is the charge that artificial food preservatives are harmful to the long-range health of the individual. To explore this controversy, invite a resource speaker from an organic food store, a food producing company, or a university to the class to speak on chemical preservatives in food including what the preservatives do to the food, their effects on people, and the kinds of foods in which preservatives are found. The speaker should also speak on alternatives to artificial preservation.

B. Have students make a list of not less than 15 foods in their home that contain artificial chemical preservatives. The lists should be brought and compared in class.

C. Students could go to a grocery store and make a list of not less than 15 food products that do not contain any type of artificial preservatives. These may include many fresh, dried, or canned foods.

Activity II Soft Water

Many areas of our country have water sources that yield water of varying degrees of hardness. The effect of hard water can be seen in the efficiency of our soaps and detergents. Since water and its hardness directly affect the residents of the community, we feel that the student should be aware of the difference between hard and soft water. Also the process of softening water should be explored.

A. The instructor could invite a representative of a water softening company to explain the difference between hard and soft water (taste test), when a softener is needed, the effects of hard water, and how a water softener works.

B. The instructor could obtain a water hardness map of the local area or state and discuss the reasons for hardness and what areas might have

problems with water hardness.

C. The instructor could obtain water sampling kits or the chemicals in such a kit and have the students test various samples of water to determine their hardness.

D. Lab groups of students could run experiments testing the efficiency of detergents, biodegradable and non-biodegradable soaps in samples of water which vary in degree of hardness.

Activity III Fluoridation

At the time of this writing, Brainerd, Minnesota, is in court arguing that they should not have to fluoridate their municipal water system. When studying fluorine and chlorine, the instructor should invite a person to discuss why these chemicals are added to water. What properties do these chemicals have? Why is it desired to have fluoride in the water and what are reasons for people to object to the addition of fluoride to their water supply?

Activity IV Individualized Activities

The unit provides the opportunity for the teacher to assist students in areas of individual interest. The teacher could be available to help students design and implement experiments which examine environmental problems within the simulated or real community. A standard procedure sheet outlining the scientific method could be used to direct independent students' inquiring.

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Missoula, MT 59807

A Guide To
Assessing the Needs
of Your Students

"A Technique for Classroom Teachers"

Spring 1979

National Center for Career Education
Box 7815
Missoula, Montana 59807
(406) 243-5262

APPENDIX C

"A GUIDE TO ASSESSING

THE NEEDS OF YOUR STUDENTS"

Purpose: This manuel has been developed to assist classroom teachers in identifying the needs of their class as a whole and the needs of individual students. This technique focuses on human development needs which significantly affect learning behavior rather than focusing on specific academic difficiencies.

Rationale:

Both Author Combs in his "Florida State Studies" and Abraham Maslow in his research on human needs and motivation described teaching as a "helping profession". Maslow further suggests that the essence of being a "good helper" lies in creating/ initiating a structure which provides appropriate conditions for growth. This structure, according to Maslow, should motivate the learners by making growth choices positively attractive and less dangerous and by making regressive choices less attractive and more costly. He further asserted that there is a sequential hierarchy of human needs which must be fulfilled in order for growth and realization of human potential to occur. He defined the hierarchy as follows:

(1) Physiological

(2) Safety

(3) Belongingness and Love

(4) Esteem

(5) Self-actualization

His basic proposition is that student behavior is directly related to their quest for fulfilling these needs. As each need in the hierarchy is fulfilled it is no longer a prime factor

in motivating their behavior. According to Maslow, each of these needs must be met or gratified to a satisfying degree at each level or step. Maslow pointed out that no need level is ever completely gratified, but at some point the individual becomes relatively saturated with that particular need level and finds another which becomes more urgent, relevant, important, or prepotent. If Maslow is correct in asserting that student behavior is a direct result of these needs and behavioral variations are due to individual differences in need, it becomes readily apparent that, as teachers, we must become adept in recognizing and identifying these human needs in our students. We must also recognize the obstacles or forces which are denying our students the satisfaction of these needs and consequently their growth and realization of potential.

Once teachers clearly recognize the specific need(s) of a child or of a class of children, they have some rational basis to select/develop strategies, activities, and/or attitudinal approaches to remove the obstacles so that the student(s) can continue the growth process towards self-actualization.

What does all this mean for me as a teacher?

Primarily, it means that, as teachers we must consciously and deliberately select and utilize a system for identifying the needs of our students. The technique described in the following pages is not meant to be a panacea for all school related needs assessment but it will provide you with a convenient strategy for recording your insights and for making some systematic judgements about the needs of individual students and about the needs of your class as a whole.

The technique requires you to make subjective judgements about observed student behavior. This is not only possible but, in the opinion of many, the responsibility of professional teachers. The essence of the technique is that it provides a systematic framework for you to make and record these subjective judgements and it provides a simplistic method for summarizing your insights and judgements.

In order to introduce you to the technique, please read the following hypothetical case study, "One Student's View" and complete the related exercise.

ONE STUDENT'S VIEW

School? Boy, is it a drag! Most of my friends feel the same way, not that they would ever admit it. But, just the same, they're bored stiff. I think they like me because I say what's on my mind. Don't get me wrong, I'm no Fonz. That guy's a phony. No twenty-five year old guy is going to be hanging around with a bunch of high school kids.

I don't know why the teachers don't like me. They never have very much. Seems like they think you're dumb unless you like to read stuff like Silas Marner and that Shakespeare stuff. I read a lot, mostly paperbacks. There are some neat things in Mechanics Illustrated and Dad has some good books on car repairs. I don't just sit around and read like they want us to do in school. I use books to find something out I want to know. You'd be surprised at the short cuts you can take by using the table of contents and I can use the index in a hurry.

In school though, you have to go through the whole book and memorize all that junk. It's hard for me to remember. I'll never be able to memorize all those chemicals in the Periodic Chart. I've failed the mastery test three times already and the teacher tells me I can't possibly pass chemistry until I get 85% on this test. I can remember the symbol for iron oxide real easy because I spent all summer working in my uncle's body shop. Boy, do you get an introduction to iron oxide there; only they just call it rust.

I guess I'll never get that Dewey Decimal System down either. I'm not sorry though, because next semester our library is changing to the Library of Congress System. I guess we'll have to study that one too. Doesn't make much difference any way. I just tell the librarian what I want and she helps me find it. That's the way I work it at the library down town. I never use the library at school.

Anyway, I'm really hung up on body work. I can hardly wait till I get a car of my own to work on. I've already learned quite a bit about paint and stuff from my uncle. I tried to tell my chemistry teacher about it last week when she was mixing some chemicals for our lab, but she didn't see what lacquer thinner had to do with the experiment, so I just shut up. Some of my buddies seemed interested though. I took four of them down to my uncle's shop after school and we saw how one of the body men, Gene, added some pigments to a base to create a real neat color. Boy, does Gene know his stuff.

I'm not very good in math either. All last week we studied fractions and I never did learn how to find the lowest common denominator. Maybe I missed something, because Thursday I helped my uncle with inventory, and then we ordered in some new materials. My uncle had me figure in about 10% additional costs because prices are going up so fast.

I even wrote some letters to several suppliers asking for their salespeople to show us some of their latest stuff on the market. My aunt, who keeps the books, typed them and said I made only two mistakes with commas. She's had three years of college and is real smart. I wish I could write them in school like that. The last one I had to write was on "What a Daffodil Thinks of Spring", but I just couldn't get started.

Some of the math things don't even make sense. Like the other day, one of our problems was:

"If a 57 foot telephone pole falls across a cement highway so that 17 3/6 feet is extending from one side and 14 3/8 feet from the other, how wide is the highway?"

That's a silly way to measure the width of highway. I didn't even try to answer it because it didn't say whether the pole had fallen straight across or not.

Even in shop, I don't get good grades. Everybody had to make bookends, and mine were kinda sloppy. Our shop teacher wants everybody to make a coffee table next semester, but mom just bought a new one. I wanted to build a paint cabinet for my uncle's shop, but the teacher said I had to work with hardwoods, and they're just too expensive for storage cabinets.

Government is hard for me too. I've been staying up late trying to learn how a bill gets introduced and finally becomes a law. I just keep getting all those little boxes mixed up. Dad says it doesn't work that way anyway. He says that people make deals behind closed doors that you can't put into all those little boxes.

Well, I've only got a couple of more years until I graduate. Mom wants me to go to college. Dad says I will have to make up my own mind. I'm kinda anxious to get out on my own. There are lots of things I want to do, and as my uncle says, "You're not getting any younger."

WANTS AND NEEDS

Much of student behavior is often based on our expression of their wants not their needs. What they want is usually obvious. One mark of a professional teacher is being able to recognize and interpret the expressed want as a signal of human need. The following exercise, which is based on the case study, will give you practice in identifying the student's behaviorally expressed wants and then making judgement about his real needs. For convenience, we shall call this young man, Bill.

The following example may help in the completion of this exercise.

1) Bill's wants can be clarified by reading the entire context of the quote.

2) Bill's need is to be identified from the five needs in Maslow's Hierarchy.

3) Possible teacher perception can be formulated by considering several possible responses you might expect teachers to make to such a statement by Bill . . .

Example 1:

"I think they like me because I say what's on my mind."

Bill's want: his peer group to like him

Bill's need: need to belong and to be loved

Possible teacher perception: his friends look up to him. If only we could channel that leadership constructively.

---

1. "I read a lot . . . to find something out I don't know."

   Bill's want:

   Bill's need:

   Possible teacher perception:

---

2. ". . . only they call it rust."

   Bill's want:

   Bill's needs:

   Possible teacher perception:

3. "I just tell the librarian what I want, and he helps me find it."

Bill's want:

Bill's need:

Possible teacher perception:

---

4. "I can hardly wait until I can get a car of my own."

Bill's want:

Bill's need:

Possible teacher perception:

---

5. "The last one I had to write was on "What a Daffodil Thinks of Spring" and I just couldn't get started.

Bill's want:

Bill's need:

Possible teacher perception:

---

6. "I'm kinda anxious to get out on my own."

Bill's want:

Bill's need:

Possible teacher perception:

Now that you have practiced the technique on a hypothetical case study, the next step is to test your skill on real, live students. The following chart is provided as a recording device. The directions are simple.

1) Commit yourself consciously to make observations and to record your insights and judgements over a two-week period.
2) Fill out Row A with your students' names.
3) On a daily basis note behavior by students which seem to you to be a significant expression of want.
4) From your notes record your insight of that want in Column B.
5) Just as in the exercise, translate that want into one of Maslow's needs categories:
   a) Physiological
   b) Safety
   c) Belongingness and Love
   d) Esteem
   e) Self-actualization
6) In the same row, under the appropriate student's name, make a subjective judgement about the intensity of that need (1-low → 3 high)
7) Repeat this process daily for at least two weeks.
8) At the conclusion of your planned observation and recording period, add the totals in both the rows and the columns.
9) Relatively high scores in the column totals help you to quickly identify individual students with unmet need problems.
10) Relatively high scores in the row totals indicate that the class, as a whole, has significantly unmet needs in this area of human growth.

What Next?

When you feel that you have a clear picture of the needs of your class and of the needs of particular individuals within your class, analyze your own behavior pattern and teaching style to ascertain if your interaction with the students is in fact:

1) assisting them in meeting their needs in their quest and growth towards self-actualization

or

2) frustrating their needs satiation and therefore stifling their growth.

These are hard questions and require honest introspection, but if dealt with on a genuine basis, the answers can assist you in actualizing your role as a 'helping profession." Most of us probably don't fall totally into one of the two extreme categories: that of being absolutely helpful or of being a frustrating influence in the lives of our students. What you can learn from this application of this technique is

1) to raise one's antenna and become more consciously aware of student needs.

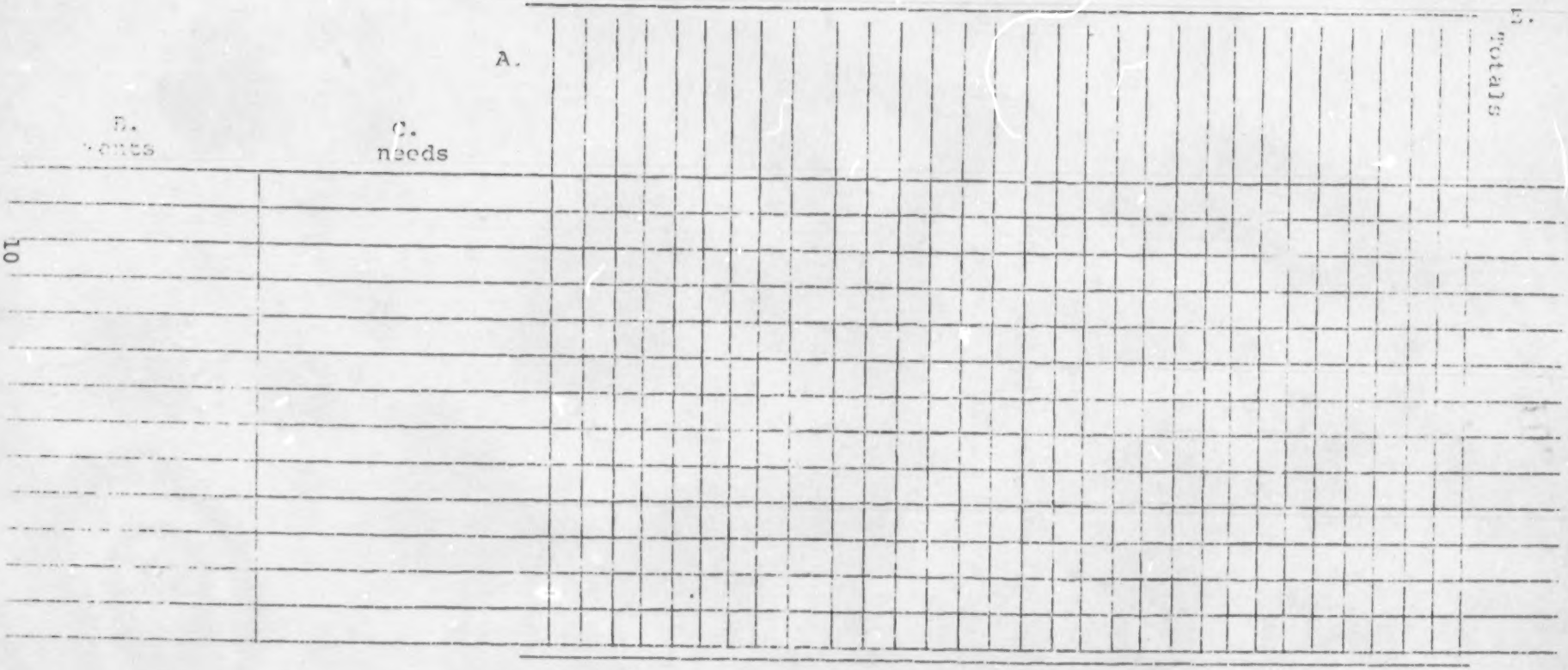
2) to utilize these identified student needs in analyzing and modifying your teaching behavior/style.

National Center for Career Education

NEEDS IDENTIFICATION

3 high
2 moderate
1 low

. . . . . Student's Name . . . . . .



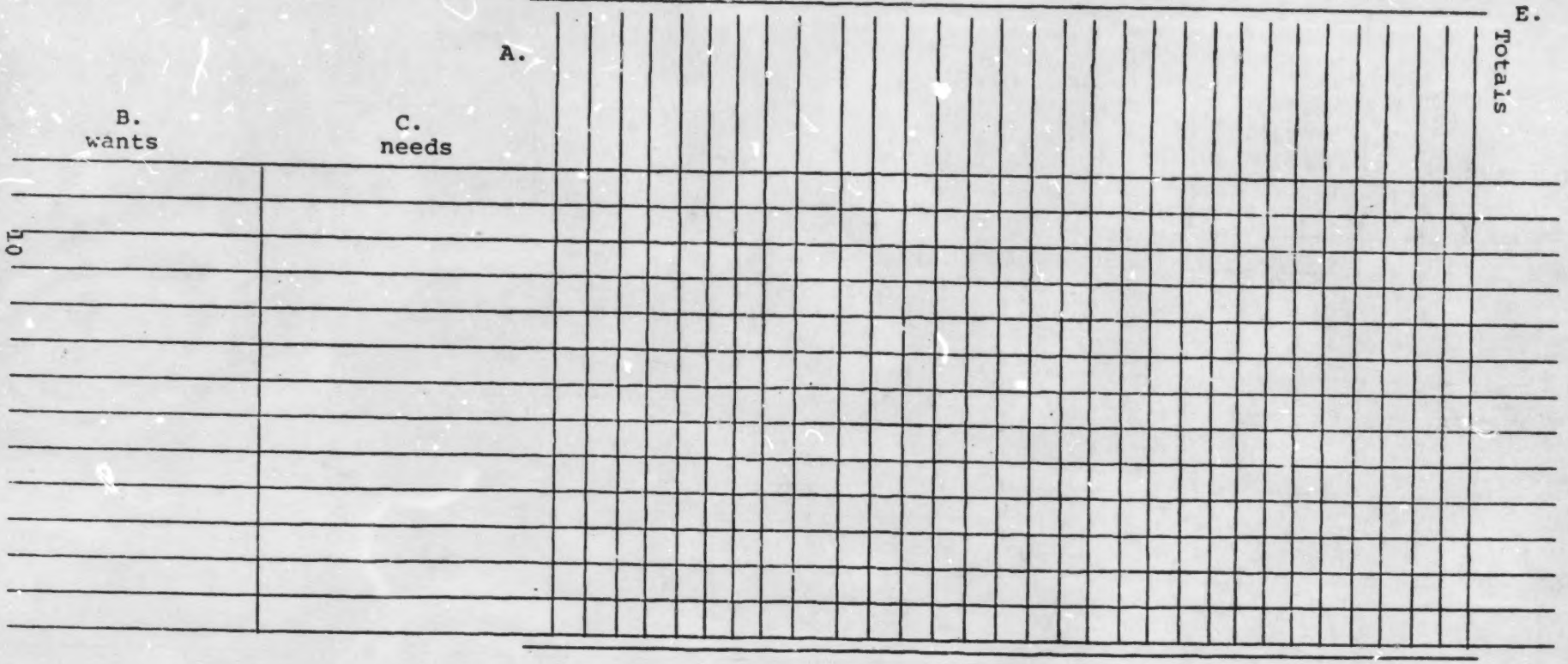
D.
TOTALS

National Center for Career Education

NEEDS IDENTIFICATION

3 high
2 moderate
1 low

. . . . . Student's Name . . . . . .

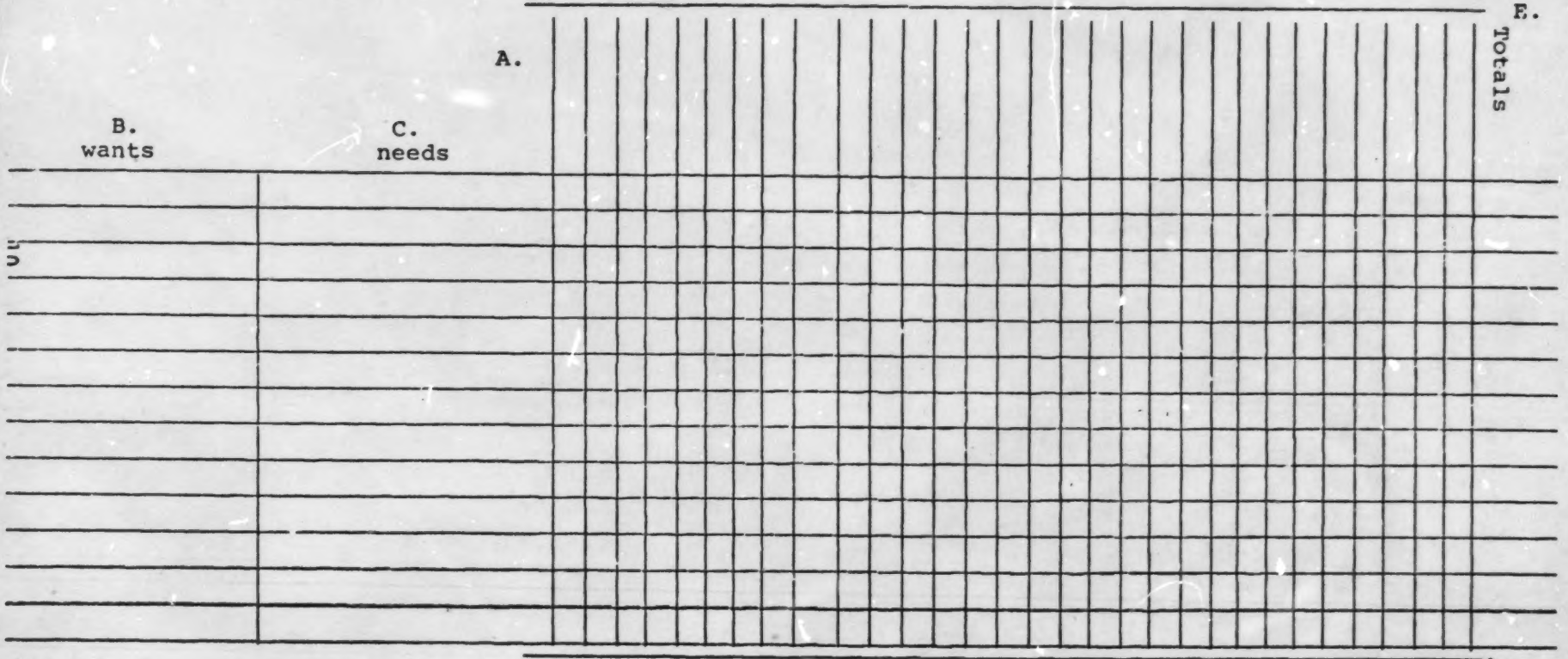


National Center for Career Education

NEEDS IDENTIFICATION

3 high
2 moderate
1 low

. . . . . Student's Name . . . . . .



111

D.
TOTALS

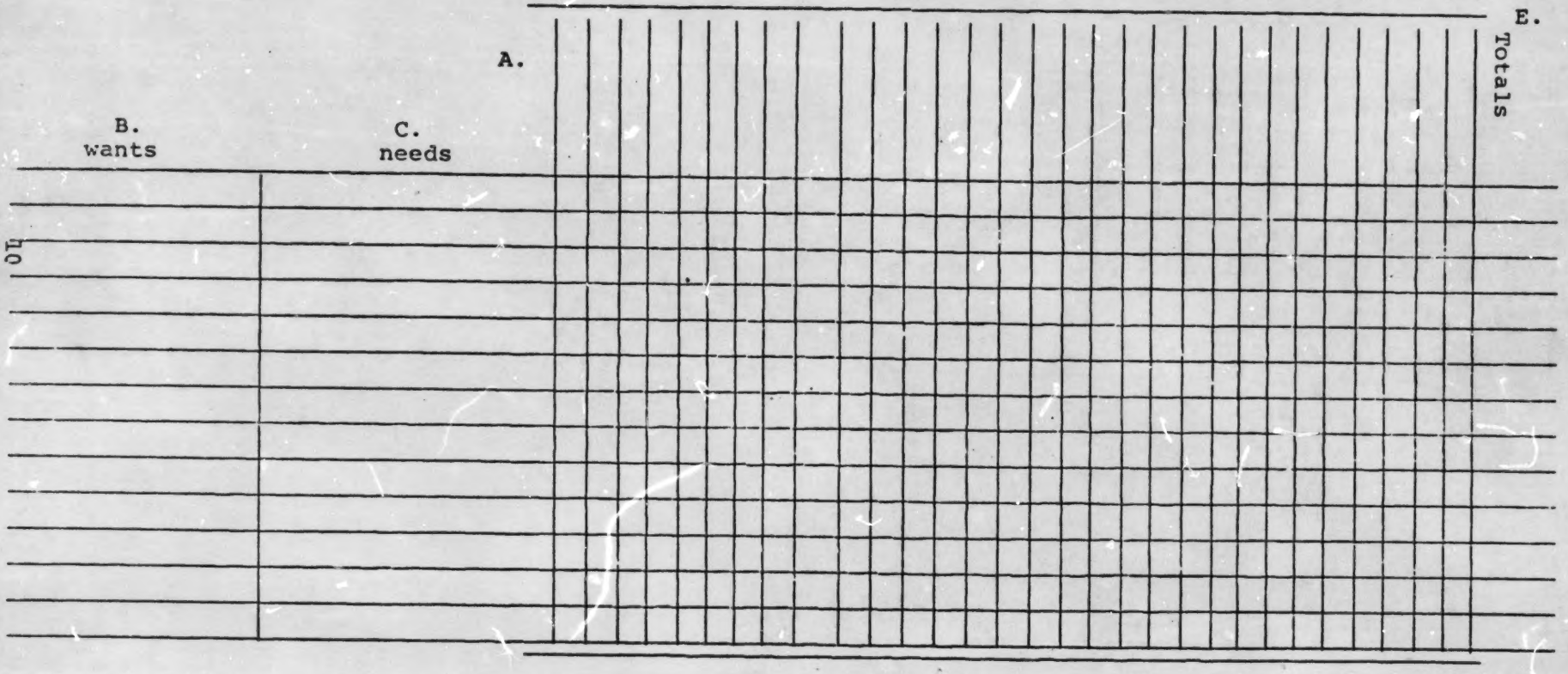
112

National Center for Career Education

NEEDS IDENTIFICATION

3 high
2 moderate
1 low

. . . . . Student's Name . . . . . .



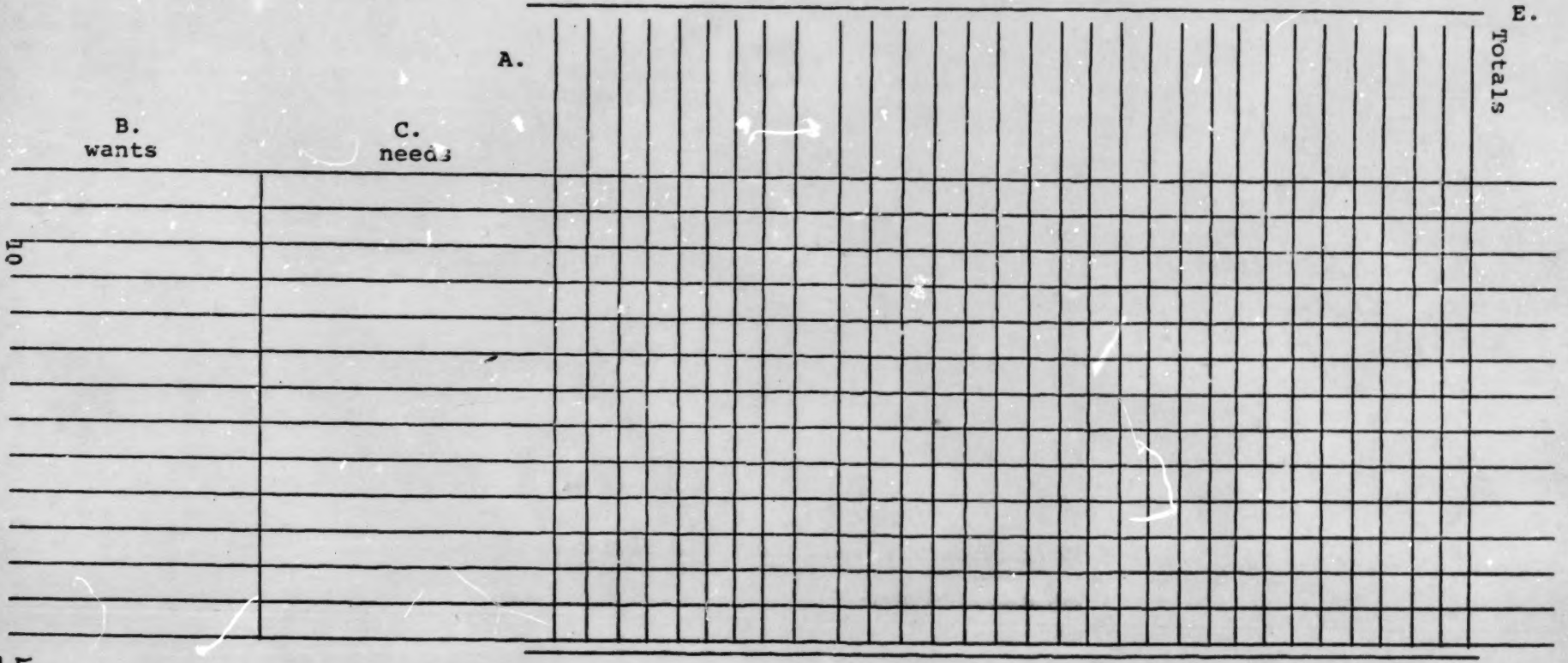
D.
TOTALS

National Center for Career Education

NEEDS IDENTIFICATION

3 high
2 moderate
1 low

. . . . . Student's Name . . . . . .

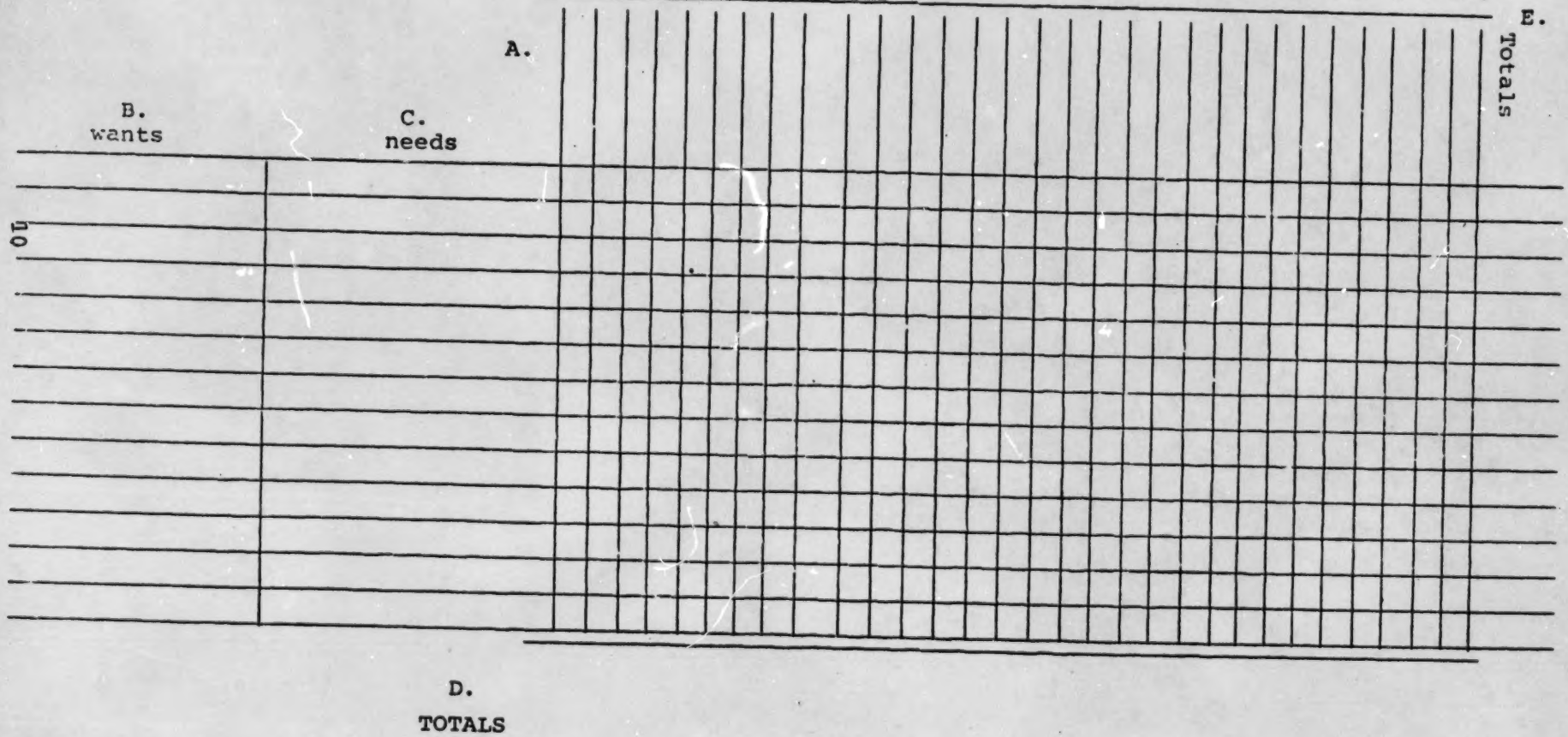


National Center for Career Education

NEEDS IDENTIFICATION

3 high
2 moderate
1 low

. . . . . Student's Name . . . . . .



APPENDIX D

"THIRD PARTY EVALUATION"

Third Party Evaluation

of

National Center for Career Education

Career Education Information Training

and Materials Systems

(CEITAIMS)

Evaluation Conducted by

Lyle Berg, Director
DIVISION OF EDUCATIONAL RESEARCH AND SERVICES
University of Montana
Missoula, Montana

For the Period

September 14, 1978 throguh September 15, 1979

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INTRODUCTION

This document reports information gathered by the outside evaluator for the National Center for Career Education (NCCE) "Career Education Information Training and Instructional Materials System" (CEITAIMS) during the fiscal year 1978-1979.

The evaluation based upon the project's Scope of Work (Appendix A) was broken into two major components of (1) Verification of Scope of Work and (2) Assessment of the Two Major Components of the Project: (a) materials processing and (b) training.

The actual Evaluation plan outlined in Appendix B illustrates the process and instrumentations used in gathering the data compiled in this report.

The report represents a comprehensive summative evaluation on the results of the project. The report itself is broken into three sections:

I. Scope of Work

II. Assessment of Materials and Training

III. Summary Findings and Recommendations

I

Verification of Scope of Work

Overview

The project evaluation plan as outlined in Appendix B included verification of compliance to the scope of work. The review of progress and completion of scope of work items was accomplished through on site visitations where completion of scope of work was verified through examination of records and interviews with staff. Each scope of work item was examined separately (see Appendix A for Project Scope of Work) and verification of its completion ascertained. The findings of the evaluation of the scope are contained in the following pages. The format used follows that indicated in the Scope of Work Checklist form found in the evaluation design in Appendix B.

a) SCOPE OF WORK ITEM: 1. Acquire materials nationally.

Description: Acquisitions of materials is operated through a series of plans necessary for complete coverage of materials availability.

Individual responsible: Ken Murray.

Start date: October 1, 1978. End date: September 14, 1979.

Comments: To date NCCE staff has acquired 8687 with a backlog of of 120 boxes not yet logged in. Acquisition plans are utilized to obtain more efficient utilization of staff time.

Problems: The large number of materials received from USOE has created a backlog in the materials division.

Recommendations: Continue utilization of existing acquisition plans.

Status: Ongoing/completed.

b) SCOPE OF WORK ITEM: 2. Collect and classify.

Description: Collect and classify materials involves ongoing process to classify materials for identification.

Individual responsible: Ken Murray/Staff.

Start date: October 1, 1978. End date: September 14, 1979.

Comments: Collection as discussed in 1.0 is ongoing as is materials classification. All materials acquired are in various stages of classification.

Problems: Backlog of materials is currently major problem.

Recommendations: Continue prioritizing the materials to be processed based upon user demand for materials of various types.

Status: Ongoing/completed.

c) SCOPE OF WORK ITEM: 3. Library materials for national access.

Description: To serve as a national repository of career education materials by collecting, classifying, storing materials and making them available to practitioners.

Individual responsible: Ken Murray.

Start date: October 1, 1978. End date: September 14, 1979.

Comments: The storage facilities for housing the Materials Library have been moved from 612 Eddy to 530 Daly. The new space allows a better integration of library functions.

Problems: The new location has limited space for preview of materials for walk in.

Recommendations: If possible, acquire space close by for preview, client conference, etc.

Status: Ongoing/completed.

d) SCOPE OF WORK ITEM: 4. Provide for access to NCCE Repository of materials.

Description: To assist users in identifying and obtaining career education materials through custom prepared computer searches of NCCE's databank, topic catalogs of career education materials, or referrals to other agencies.

Individual Responsible: Ken Murray.

Start date: October 1, 1978. End date: September 14, 1978.

Comments: The center staff continuously is responding to requests for information about materials and for materials themselves.

Problems: In some instances, requestors/users ask for global information/materials (i.e. send me everything in career education) or request information/materials; (send me everything on math, fourth grade) and are answered with a letter and brochure requesting more specific information from the user.

Recommendations: Even though it is difficult to "second-guess" users' desires/needs, it would be a good idea to send a sample printout and a sample of material to provide a better idea of the resources available.

Status: Ongoing/completed.

e) SCOPE OF WORK ITEM: 5. Enhance, maintain and modify the existing materials processing and information system.

Description: Design, test and implement major revisions to allow for improved materials capabilities, especially the new products called NCCE Indexes for Teachers and Mini Libraries.

Individual responsible: Ken Murray.

Start date: October 1, 1978. End date: September 14, 1978.

Comments: The internal review and modifications of NCCE system for processing information is an ongoing process. Revisions to date include improvement of procedures, enhancing the range of user services and increasing flexibility of searching.

Recommendations: The constant review and improvement of the system should remain a high priority.

Status: Ongoing/completed.

f) SCOPE OF WORK ITEM: 6. Disseminate bimonthly newsletter.

Description: Distribute newsletter to national mailing list to provide information about NCCE with special efforts to target on specific audiences.

Individual responsible: Claudia Fahey/staff.

Start date: October 1, 1978. End date: September 1, 1979.

Comments: The NCCE newsletter is sent to over 2000 Career Educators across the nation.

Problems: Because of lack of funding, newsletter distribution was reduced from a monthly to bimonthly issue.

Recommendations: Since this is a major awareness activity, this activity should be increased if possible.

Status: Ongoing/completed.

g) SCOPE OF WORK ITEM: 7. Allow for the dissemination of mini-libraries to state coordinators of career education.

Description: To continue communication with state coordinators by sending each a Mini Library Examination Kit and Career Education Resource Guides, as well as attending national and regional state directors meetings.

Individual responsible: Ken Murray/Harrell Guard/Dennis Niedermeyer.

Start date: October 1, 1978. End date: September 1, 1979.

Comments: The service to state directors is a linking function to school districts and career educators in each state.

Problems: The feedback from career education coordinators indicates that, while they appreciate NCCE efforts in supporting them, they don't have the resources to act as an awareness service for NCCE.

Recommendations: Continue service to state director but expand awareness activities directly to educators and others in each state.

Status: Completed.

h) SCOPE OF WORK ITEM: 8. Maintain systematic dissemination of NCCE information and mini libraries to other groups.

Description: To deliver Mini Library I products nationally and develop a Mini Library II.

Individual responsible: Ken Murray.

Start date: October 1, 1978. End date: September 1, 1979.

Comments: The capability to respond to resource centers' and districts' request for a broad range of career education materials has been fulfilled through the dissemination of mini libraries.

Problems: The resources available in the mini libraries should be made available nationwide whenever possible.

Recommendations: Seek outside funding to allow for dissemination of libraries across the nation.

Status: Ongoing/completed.

i) SCOPE OF WORK ITEM: 9. Modify existing training model for application to business, labor and industry.

Description: To develop a variety of basic training models for educators, administrators, community members, advisory councils, business, labor, industry, and CETA youth.

Individual responsible: Dr. Harrell Guard/Dr. Vincent Barry.

Start date: October 1, 1978. End date: September 1, 1979.

Comments: The utilization of existing materials, utilization of training activities in a community involved in model to career education materials.

Problems: The model was developed for involvement of business, labor and industry and not for parent and other community members.

Recommendations: Modify model to include greater number and include parents and other community members.

Status: Completed.

j) SCOPE OF WORK ITEM: 10. Field Test Training Model

Description: To field test models outlined in 9.

Individual responsible: Dr. Harrell Guard.

Start date: October 1, 1978. End date: September 1, 1979.

Comments: The model developed was field tested in Miles City Schools utilizing five teachers and five business representatives.

Problems: The in-service was reported as effective, but it was felt greater involvement of labor would have broadened its perspective.

Recommendations: In the future, a representative of labor and possibly government be included.

Status: Completed.

k) SCOPE OF WORK ITEM: 11. Refine needs assessment instrumentation that can be utilized by local practitioners.

Description: To develop a new needs assessment.

Individuals responsible: Dr. Harrell Guard/Dennis Niedermeyer.

Start date: October 1, 1978. End date: September 1, 1978.

Comments: The needs assessment is a self-administered instrument designed to assist teachers in identifying needs and being better able to determine the resources required to meet those needs.

Problems: The instrument has not been used generally and has yet to be field tested.

Recommendations: Field test instrument and make it available to educators on request.

Status: Completed.

l) SCOPE OF WORK ITEM: 12. Maintain the capability to respond to staff development in-service nationally.

Description: Maintain training staff and cadre of career education specialist for training.

Individuals responsible: Dr. Harrell Guard/Dennis Niedermeyer.

Start date: October 1, 1978. End date: September 14, 1979.

Comments: The existing NCCE cadre is maintained for the utilization in in-service training. NCCE has an existing model for training master trainers which has been inproved/modified.

Problems: The number of cadre members is geographically limited.

Recommendations: When possible, train additional cadre members to include greater geographic representation.

Status: Ongoing/completed.

m) SCOPE OF WORK ITEM: 13. Maintain Dialog with national, regional, and multi-state agencies.

Description: To maintain communication with a variety of agencies through such efforts as training project officers in utilization of NCCE and maintaining contact with other information agencies.

Individuals responsible: Dr. Vince Barry/Staff.

Start date: October 1, 1978. End date: September 14, 1979.

Comments: The maintenance of dialog with agencies committed to career education including national labor organizations, business, government agencies, etc.

Problems: Limited involvement with CETA organizations.

Recommendations: Expand involvement with prime sponsors and DOL.

Status: Ongoing/completed.

n) SCOPE OF WORK ITEM: 14. Maintain and expand systematic exchange of NCCE information and resources with other dissemination agencies.

Description: To use the information contained in other information centers to augment its coverage of Career Education relevant materials.

Individual responsible: Ken Murray.

Start date: October 1, 1978. End date: September 14, 1979.

Comments: Exchange of materials and information has been accomplished through existing regional and local Career Education Resource Centers including ERIC/CE, WACOP, etc.

Problems: The progress that has been made in getting other dissemination agencies to work toward a common front as outlined in the Education Products Information Exchange (EPIE) report has been limited.

Recommendations: Create a forum by which career education disseminators can establish a working relationship to improve dissemination efforts.

Status: Ongoing/completed.

o) SCOPE OF WORK ITEM: 15. Participate in regional and national conferences related to career education.

Description: To participate in conferences of national significance and provide exposure for career education.

Individuals responsible: Dr. Vincent Barry/Staff.

Start date: October 1, 1978. End date: September 14, 1979.

Comments: The staff of NCCE has attended a series of conferences across the nation. NCCE primarily attends conferences where they are invited to make presentations, etc.

Problems: Conference attendance is limited to conferences from which invitations to present have been received.

Recommendations: Creator impact could be obtained by increasing attendance and sending two persons to attend conference; one person operating a booth and second person giving workshops, etc.

Status: Ongoing/completed.

Based upon review of Scope of Work all objectives of the project have been either met or exceeded.

II

Assessment of Materials Processing and Training

The assessment of the quality of the project's delivery system was a major thrust of the evaluation. The method used for assessment of the quality was a questionnaire mailed to previous recipients of training and materials, along with analysis of existing research previously done in these areas. Specifically, analysis of "A Comparison of Career Education Information and Technical Assistance Systems," a report prepared for the National Advisory Council for Career Education by David Elliott of Educational Products Information Exchange Institute was included as a major resource.

For presentation purposes, the remainder of this report will be broken into major areas of (a) Materials Delivery System and (b) Training.

a. Materials Delivery System

National Center for Career Education (NCCE) materials system revolves around the National Center for Career Education data bank of career education materials. The National Center for Career Education database consists of a bank of over 7000 career education instructional materials for use in relating career education topics and concepts to instruction in various school sybject areas. The contents of the bank include mainly non-commercial (and mostly teacher-made) learner materials, curriculum guides and manuals, and materials for use in assessing student progress or understanding. Other materials describe programs and activities

(including project reports) and curriculum development and implementation strategies. National Center for Career Education does not actively computer bank such documents as research reports, journal literature, doctoral dissertations, lists of objectives or test items, vocational or occupational information (e.g., job trends, availability), or conference reports, although such items are often acquired and kept by the Center for reference.

The EPIE report, previously mentioned, listed National Center for Career Education in comparison to seven other career education information and materials systems as "the only one who specializes in career education exclusively." The report also states that "in order to keep career education visible and alive as a concept and process for enriching instructional programs while not being a separate subject area itself (such as mathematics, science or specific vocational technical courses, for example), it is suggested that the National Center for Career Education, or some similar system specializing in career education, kindergarten through grade 12 and beyond, receive continuing support as a national advocate for career education. Such an advocate would work to help educational (and other) agencies (a) to clarify their own needs and approaches in regard to career education, and (b) develop programs and instructional materials for use with their students and clients."

In addition, the report made a series of recommendations concerning:

- o national format for product summaries
- o format should be revisable
- o provisions should be made for inexpensive preview

o uniform standards for inclusion of documents and

o a process for feedback should be adhered to.

The report's summary recommendations were as follows:

"A first step in the inplementation of these recommendations might be to have National Center for Career Education process all instructional materials received in the future by any of the systems (and determined to be up to minimum standards), while at the same time (a) making its computer tapes available (say, on a yearly lease basis) to other systems and agencies who wish to provide search and retrieval services, and (b) submitting copies of all the materials it receives and processes to ERIC/CE for microfilming and inclusion in the Resources in Education index, so that potential users might have access to them through the ERIC system."

"Following this step, as the instructional design-type format used by National Center for Career Education becomes further refined as a result of its use by, and feedback from, users, the procedures for applying it to the description of instructional materials in career education could be taught to staff members of other systems through (say) a phase of the National Center for Career Education training program under the auspices of NNCCVTE and RDX state and regional units. In this way more people would be able to process and describe newly acquired materials for the nationwide network, and at least some of the materials already in the network could be re-described using the new format."

Because of the work done by EPIE in establishing National Center for Career Education's validity as the lead career education information

and instructional materials system the Division of Educational Research and Services went beyond the EPIE study to ascertain the quality of the delivery system as perceived by users. The following summarization of the data collected from users illustrates users' perceptions as to the quality of National Center for Career Education's materials system. The data was collected using the questionnaire found in Appendix B.

1. Have you used National Center for Career Education materials?

	N	Percent
Yes	58	78.4
No	16	21.6

2. How did you request National Center for Career Education materials or information services?

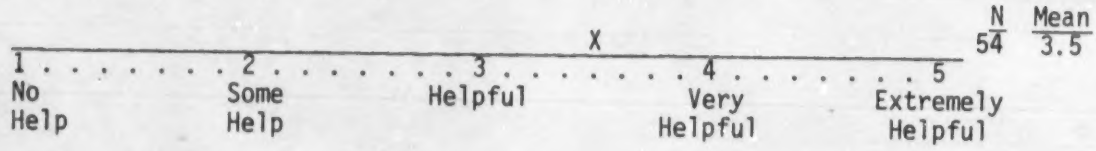
	N	Percent
Mail	17	25.4
Phone	7	10.4
Training	21	31.3
Other	22	32.8

3. The number of materials used averaged 7.59.

4. Were materials used as:

	N	Percent
Reference for idea gathering or strategies	55	44.7
Adoption or adaptation for classroom use	34	27.6
Other	9	7.3

5. If applicable, how helpful did/do you find these materials in planning career education classroom activities?



N 54 Mean 3.5

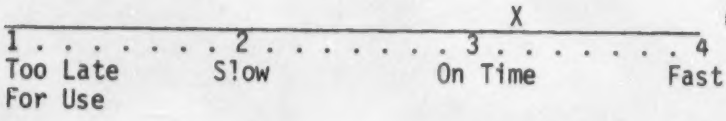
5a. Respondents averaged 12.4 activities.

5b. Respondents averaged using the activities with 110.8 students.

6. I have or plan to continue to use National Center for Career Education's library services.

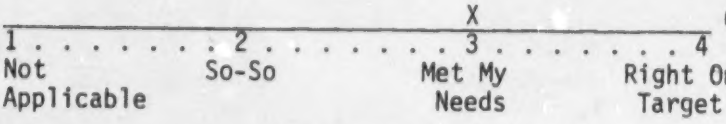
	N	Percent
Yes	46	80.7
No	11	19.3

7. Was the information or materials received:



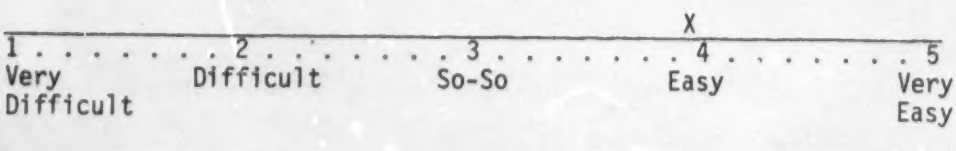
N 62 Mean 3.1

8. Based upon what I asked for, what I received was:



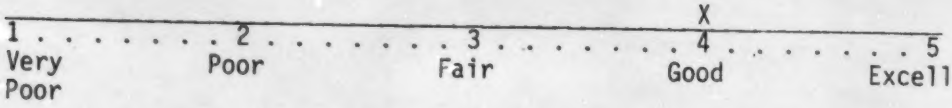
N 63 Mean 3.0

9. The procedures I had to go through to receive information from National Center for Career Education were:



N 63 Mean 3.9

10. I would rate National Center for Career Education's overall materials delivery system as:



N	Mean
64	4.03

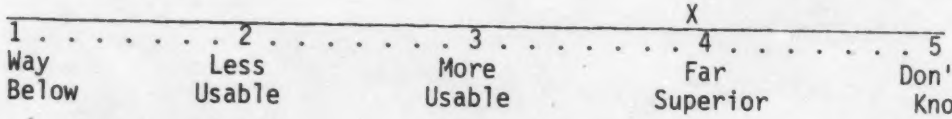
11. Have you used national center career education materials information systems other than National Center for Career Education's?

	N	Percent
Yes	20	21.7
No	72	78.3

12. If yes, which systems (i.e. ERIC):

	N	Percent
ERIC	19	15.4
Oregon	1	0.8
State Computer Service	1	0.8

13. Overall, how did you find National Center for Career Education's systems compared to others?



N	Mean
23	3.13

The following are written responses to questions 14 and 15 dealing with the materials delivery system.

Written responses to question 14, "What is really needed in the way of materials is:

"A better conceptual scheme to sort out var , kinds of lessons, etc."

"Curriculum ideas for teachers."

"Materials a classroom teacher can duplicate and use."

"More free materials."

"Index of themes and items."

"Readable and well presented materials. These were poorly formatted and hard to read. The materials sent for had a price tag that was not mentioned when we ordered."

"Updated materials."

"Certification and verification by other users."

"More on suggestions for staff training. Good guidance inventory---I liked it!"

"Less expense."

"Wider range."

"Audio visual guide."

"Continuing update."

"Implementation."

"Visuals."

"Variety---film, dittos, records, etc."

"More."

"Materials that will make learning more meaningful and acceptable to students."

"More materials suited to western Montana situation."

"Curriculum fiche for student use."

"Those things provided by National Center for Career Education."

"Motivational materials for Jr. High was my most difficult area."

"The materials I received were very appropriate, especially for this community."

"More labor market information. Aptitude and ability testing."

"Rural areas."

"More suggested specific activities."

"Career Education Magazine is very good."

"Teacher-made, teacher-tested, ready-to-plug-in activities,

"games/resources and idea books."

Written responses to question 14, "What is really needed in the way of materials delivery system is:"

"Prompt delivery system."

"It's OK as is."

"No changes. Office is very cooperative."

"I think delivery is adequate."

"Telecenter on the Peninsula."

"A good career information system that could be utilized at the local level with a little modification."

"One system."

"Less expense."

"Quicker search at home base and send materials out--especially out of state."

"Current and new listings each year with automatic notice of new listings that meet your previous descriptions."

"They are just fine."

"System seems fine to me, as is."

"Don't know."

"Need more than one set or copy so more people can use the materials."

"Catalog or list of material that can be used, or is on hand for reference and purchase---this questionnaire gave me first indication of this possibility as of page one, question 6A."

"Speed."

"A clearer explanation of nature of material and grade level intended for."

"Increased processing speed."

"Same system used by National Center for Career Education."

"Seems pretty good, I guess the printing was slow."

"More on one to one basis to discover individual needs."

"The cost "in the dollar crunch" is above small school systems."

"Judy Carlson, our Career Education Co-ordinator, sees that we get any materials she thinks are appropriate for our grade level."

"More information as to what is available."

The information received from the questionnaires appears to support the fact that users of the system are well served. On each item asked, the response was above average, and overall the comments seem to indicate support for the systems delivery capabilities. Not surprisingly, users found National Center for Career Education's system more usable than others.

b. Training

The NCCE inservice training modules cover four main processes: (1) the clarification of career education and the development of a working definition for the participating institution or community; (2) the localization of career education in terms of the institution's overall philosophy of education and student/classroom/career education needs, and the formulation of career education goals; (3) the planning and development of a sequential curriculum using the career education goals as guides; and (4) the implementation of a program, including the identification, selection and production, and adaptation of resource materials, and the use of materials in the classroom to carry out units of instruction.

Because of NCCE philosophy, the training is integrated with the materials delivery system. Due to this integration, in the previously mentioned EPIE report it was recommended that: "The NCCE training program under the auspices of NNCCVTE and RDX state and regional units could be taught to the staff members of other systems."

Beyond this recommendation, the Division of Educational Research and Services in its evaluation of the project desired to measure the quality of NCCE training. The instrument in Appendix B was used to gather data establishing users' perceptions of the quality of NCCE's training.

The following is a compilation of responses to the multiple response items on the questionnaire pertaining to training.

1. Was the training helpful in assisting you to plan and implement career education activities in your classroom?

					N	Mean
		X			88	2.95
1	2	3	4	5		
Not Really	Some Help	Helpful	Very Helpful	Extremely Helpful		

2. In which of the following ways did training increase the career education activities you now utilize?

	N	Percent
Increased Quantity	4	4.7
Increased Quality	25	29.1
Increased Both Quantity And Quality	38	44.2
Increased Neither Quantity Nor Quality	19	22.1
	86	100.0

3. If the quality was increased, what student behavior indicated an increase in quality?

	N	Percent
Training Increased Interest	58	47.2
Training Increased Achievement	11	8.9
Training Decreased Deviate Behavior	5	4.1

4. If it increased the quantity of activities, how often do you now use career education activities in your classroom?

	N	Percent
Seldom	8	14.3
Monthly	15	26.8
Weekly	21	37.5
Daily	12	21.4

Respondents used career education activities with an average of 86.1 students.

5. Have you participated in career education training other than NCCE's?

	N	Percent
YES	34	38.6
NO	54	61.4

6. If YES, how did the other training compare to NCCE's training?

N	Mean
33	3.03

1.....2.....3.....4.....5
X
Below — Not As Helpful — Same — More Helpful — Superior

9. How do you perceive the need for career education training in your district?

N	Mean
103	3.35

1.....2.....3.....4.....5
X
Not Needed — Some Importance — Important — Very Important — Crucial

The following are the written responses to questions seven and eight pertaining to the training section of the questionnaire.

Written responses to question 7, "In a short statement, please indicate what you felt was/were the most significant aspect(s) of the NCCE training program?"

"It mainly showed how to write our lesson plans with more 'CE' direction."

"Have requested materials from NCCE's computer banks in relation to State Plan. Reports were timely. Follow-up was excellent."

"It dealt with lifestyle as opposed to occupations."

"Poor organization."

"The instructors were enthusiastic -- some of the ideas seemed to me a waste of time, i.e. games."

"Having the person visit my classroom."

"Interpersonal relationships of trainers/trainees."

"Learning to integrate career education with basic skills learning situations."

"For me to become better informed."

"A vast amount of awareness in terms of resources."

"Student centered activities."

"The planning method was helpful."

"Curriculum development."

"Design of own learning activities for students."

"Explained the potential of Career Education in the classroom through use of materials and the community resources."

"I was a beginning teacher that particularly needed the concept and philosophy explained."

"Computer searches."

"Community resources."

"They tried to relate it to what is current."

"Project development."

"Incorporating career ed into language arts process as a motivator (relevance)."

"It served as a refresher to realizing what was available for use as well as new options to consider for use."

"It was useful because it was for our situation rather than theory."

"Appropriate and needed content."

"Exposure to different programs incorporated in different districts in different disciplines."

"It offered good training but needs better implementation procedures."

"Excellent resources."

"The attention to my specific needs as a CE In-Service trainer."

"It helped expand my views of Career Education and its use."

"The application to every day use in the classroom."

"Reality and what should be done in our public school systems."

"It was relevant."

"Ideas, incentive, picking apart the school board philosophy."

"Organizing ideas, events."

"I got nothing out of the adult ed. class except the opinion it was all a waste of time."

"Increased interest and participation of students to improve their achievement."

"The most significant aspect is nearly impossible to pinpoint, but one of the many positive was reminding each of us that education must be realistic to be valuable."

"Helpful in putting ideas together to better utilize what was available."

"Extra information."

"Hands on/personal touch of instructors."

"Exposed to some new ideas in the field."

Question 7 continued

"More highly trained personnel."

"Different than usual methods -- resourceful."

"The personal attention of the NCCE staff."

"Not very helpful to me."

"Availability of ideas and materials -- I had never taught career education before this year."

"The discussion materials used in the small groups of four or five people was most helpful."

"Relating classroom theory to real-life situations and applications."

"Availability of teaching and educational materials."

"Relating the 3R's to the community."

"The credit hours."

"Association with others in similar situations, i.e. establishing a program."

"Personalities (instructors), organizational pattern, small group activities."

"Actual field learning experience information presented in a more appropriate other than classroom setting."

"I felt the units prepared for classroom use was significant as it taught me how to construct more units."

"The positive attitude of cooperation between teachers, parents, and business people."

"It was aimed at the student with his future in mind."

"9 credits career awareness for elementary students."

"Make teachers aware of the need of career education with students."

"Instruction and material were pertinent to the classrooms and not just theory."

"The films shown."

"Actually it was like a methods class. It helped teach you to make lesson plans."

"Ideas and information as to where to obtain data."

"How they implemented careers into the classroom -- everywhere in the school."

"The program's integration into subject areas."

"Exposure."

"Learning to use the material in the classroom."

"Enthusiastic personnel."

"Materials provided additional insights into career educ."

"The exercises that opened people's eyes to what kinds of things are really important in education -- affective areas, survival skills."

"Getting to know the others in class -- a comfortable atmosphere."

"Awareness."

"Materials -- Discussion -- Research by students."

"Cheap three credits."

"Excellent workshop."

"Start early in school life to think of careers. Find about many careers -- to make a choice later."

"Introduction to concept of career ed infusion as principle for constructing program."

"A genuine interest in me as a person as well as a professional/concern for my students!"

Written responses to question 8, "If you were able to make any modification to the NCCE training program, what would you suggest needs changing."

"Structure, goals."

"A program with more involvement."

"Length of time between meetings."

"Courses and course outlines that work in established career ed. programs. Materials also."

"Change your title -- most everything in the course was 'old' material being touted as a new approach. I have encountered similar exercises and approaches under the guise of 'humanism' and later as 'communication,' when it was a fad."

"There should be a bibliography of materials available for sale in the classroom from vendors and other resources."

"Simplify approach to Curr. Development."

"Be more explicit and condensed. Assume this has happened through experience."

"Examples and comments need to be more specific -- not so generalized. (Deal in specifics -- not generalities.)

"Fewer games, fewer 'get acquainted' activities, fewer jokes; more assistance with and explanation of the assigned project."

"More in-depth searches."

"Teacher oriented cooperation."

"Less group activity."

"Transmit more concepts in lecture which is more efficient with follow-up activity."

"Be able to carry out program without so much paperwork."

"None."

"More exposure to different school districts. This could be accomplished by presentations at all conventions, etc."

"More time in the classroom, teaching with resources observing/participating and making suggestions."

"Try to eliminate some of the paperwork required in maintaining a program."

"More funding, more staff, and more people realizing the problem."

"Too much ideology, need more concrete ideas."

"It was an excellent program."

"Management -- I can understand the use of career ed. in high school but not in lower grades where teachers tend to incorporate jobs and careers into their classes."

Question 8 continued

"I would not modify the program, I would expand it."

"It's difficult to disseminate information to co-workers. I would like to see definite steps made for follow-through."

"Increase intensity of how to implement in multi-level schools."

"Greater active involvement in related classroom teaching areas."

"Be a little more specific in training."

"Nothing."

"None - my exposure was brief, but very helpful."

"I don't feel that anything necessarily needs to be changed. The entire program was worthwhile."

"Cost conscious and expanding the file."

"Instructors' attitude to be more on youth associated level."

"I think the use of the units stored are too expensive for small schools."

"More specific suggestions for use of available resources and materials."

" was aimed at the student with his future in mind."

"Less handouts."

"Stay away from theory."

"Less lecture and more actual involvement."

"How to implement career ideas in the classroom."

"More dynamic training modes."

"Less theory and more practical information."

"The personnel."

"Less printed material and a better statement of goals and expectations."

"Follow up."

"Implementation in classroom -- how to do so."

The responses to the questionnaire indicate that the training was helpful and according to 78% of the respondents either increased quantity, quality or both. A large majority (69%) continue career education activities with the students.

No significant difference was found between NCCE's training activity and others. However, users rated the need for inservice as important.

The majority of comments were supportive, with the majority of the remainder keying upon constructive input for modification.

III

Summary and Recommendations

Based upon the analysis of the data and review of previous evaluation efforts, there is strong support for asserting the quality of the Career Education Information Training and Instructional Materials System.

The positive response to the questionnaires illustrates the user support of the project.

It is recommended that the information gathered to date be used for expansion and update of the two areas, materials services and training. The review of the scope of work for the project indicates that all items were completed and the objectives of the project were either met of exceeded. The primary problems encountered involved lack of fiscal resources necessary for responding to needs of users. We recommend that additional funding sources be sought to expand services to users. Based upon the magnitude of the effort and the results produced from the limited resources available it is evident that the results of this project are exemplary.

Appendix A

CEITAIMS Scope of Work

CEITAIMS

SCOPE OF WORK

		Start	End
1.	Acquire materials nationally	10/1/78	9/14/79
2.	Collect and classify materials	10/1/78	9/14/79
3.	Library materials for national access	10/1/78	9/14/79
4.	Furnish access to national repository of materials	10/1/78	9/14/79
5.	Enhance, maintain and modify the existing materials processing and information system	10/1/78	9/14/79
6.	Disseminate bi-monthly newsletter	10/1/78	9/1/79
7.	Disseminate Sample Libraries to state coordinators of career education, state career education advisory councils and OCE funded projects	10/1/78	9/1/79
8.	Maintain systematic dissemination of NCCE information and Sample Libraries to other groups	10/1/78	9/1/79
9.	Modify existing training model for application to business, labor and industry	10/1/78	9/1/79
10.	Field Test training-model	10/1/78	9/1/79
11.	Refine needs assessment instrumentation that can be utilized by local practitioners	10/1/78	9/1/79
12.	Maintain the capability to respond to staff development in-service nationally	10/1/78	9/14/79
13.	Maintain national dialog with national, regional and multi-state agencies	10/1/78	9/14/79
14.	Maintain and expand systematic exchange of NCCE information and resources with other dissemination agencies	10/1/78	9/14/79
15.	Participate in regional and national conferences related to career education	10/1/78	9/14/79
16.	Evaluate training and materials activities	10/1/78	9/14/79
17.	Report program progress semiannually and annually	10/1/78	9/14/79

APPENDIX B

EVALUATION PLAN

THE PROJECT EVALUATION PLAN

The Project Evaluation Plan will key upon two major items:

1. The verification of compliance to the scope of work, and,
2. Assessment of the two major components of the project, a) materials processing and b) training.

The first major item will be completed through on-site examination of records and interviews with staff to verify each scope of work item utilizing the "scope of work checklist instrument" which is attached.

The second major item will involve an assessment of the quality of the project's delivery systems. In order to accomplish the assessment, a two leveled evaluation design has been decided upon and described below.

The first level is to determine (1) the extent of users awareness of career education assistance systems and (2) users assessment of the appropriateness of these systems. Specific sub-items of interest shall be:

- Awareness of nationally available career education assistance,
- Which resource they have used,
- Which resources fit their needs,
- Which resource actually made a difference.

The second level is designed to determine the actual quality of assistance provided by the National Center for Career Education. Since the assistance provided can take different configurations, the assessment will key upon those different types of assistance. Specific items of interest will include:

- Which services provide the best assistance,
- Does more assistance result in greater quality of results,
- Which populations are best served by which service,
- Which services can be altered to better serve practitioners needs.

In order to gather the required information, a multi-purpose instrument similar to the one enclosed (see attached NCCE evaluation form) will be mailed to Career Education practitioners served by the project. This information will then be gathered and analysed by the third party evaluator.

SCOPE OF WORK CHECKLIST FORM 35

Date_____

cope of work item:_____

escription:_____

_____

_____

ndividual responsible:_____

tart date:_____ Verified:_____

nd date:_____ Verified:_____

ercent complete:_____

nterviewed staff member

omments:_____

_____

_____

_____

roblems:_____

_____

_____

_____

ecommendations:_____

_____

_____

_____

tatus:_____

_____

_____

_____

NCCE MATERIALS AND TRAINING EVALUATION FORM

PART I - General

1. Position or title:_____

2. Type of instruction:

_____Elementary	_____Industry
_____Secondary	_____Government Non-educational
_____Postsecondary	_____Government Educational
_____Higher Education	_____Association
_____Business	_____Other, please specify
_____Labor	_____

3. Have you ever been served by NCCE services? _____Yes _____No

4. If YES, what type? *(check all that apply)*

_____Materials
_____Training
_____Other

5. If YES, what years? *(check all that apply)*

_____1975
_____1976
_____1977
_____1978
_____1979

6a. Materials: *(check all that apply)*

_____Computer prepared materials list (Indexes)
_____Custom computer searches
_____Borrowed materials
_____Purchased materials

6b. Training: *(check all that apply)*

_____One day or less
_____Mt. Bell "Cooperative Design"
_____CETA training
_____Career Education Curriculum Design
_____Community vs the Classroom
_____Other

PART II - Training

If you received training, could you please respond to the following questions by circling the appropriate response? If you did not receive training, please go to Question 9, PART II.

1. Was the training helpful in assisting you to plan and implement career education activities in your classrooms?

   Not really Some help Helpful Very Helpful Extremely Helpful

2. In which of the following ways did training increase the career education activities you now utilize?

   Quantity Quality Both Neither

3. If the quality was increased, what student behavior indicated an increase in quality?

   Increased interest Increased achievement Less deviate behavior

4. If it increased the quantity of activities, how often do you now use career education activities in your classroom?

   Seldom Monthly Weekly Daily Hourly

   A. With how many students?_____

5. Have you participated in career education training other than NCCE's?

   YES NO

6. If YES, how did the other training compare to NCCE's training?

   Below Not as helpful Same More helpful Superior

7. In a short statement, please indicate what you felt was/were the most significant aspect(s) of the NCCE training program?

   _____

   _____

8. If you were able to make any modification to the NCCE training program, what would you suggest needs changing?

   _____

   _____

9. How do you perceive the need for career education training in your district?

   Not needed Some importance Important Very Important Crucial

PART III - Materials

If you have been served by Materials Services at NCCE, would you please answer the following questions? If not, go to Question 11, PART III.

1. Have you used NCCE materials? _____Yes _____No

2. How did you request NCCE materials or information services?

   *Mail Phone Training Other*_____

3. Number of materials used:_____

4. Were materials used as: *(check all that apply)*

   _____Reference for idea gathering or strategies

   _____Adoption or adaptation for classroom use

   _____Other, specify

5. If applicable, how helpful did/do you find these materials in planning career education classroom activities?

   No help Some help Helpful Very helpful Extremely helpful

   a. How many activities?_____

   b. With how many students:_____

6. I have or plan to continue to use NCCE's library services.

   _____Yes _____No

7. Was the information or materials received:

   Too late for use Slow In time Fast

8. Based upon what I asked for, what I received was:

   Not applicable So-so Met my needs Right on target

9. The procedures I had to go through to receive information from NCCE were:

   Very difficult Difficult So-so Easy Very easy

10. I would rate NCCE's overall materials delivery system as:

Very poor *Poor* *Fair* *Good* *Excellent*

11. Have you used National Center Career Education materials information systems other than NCCE's?

____Yes ____No

12. If YES, which systems (i.e., ERIC):

_____

13. Overall, how did you find NCCE's systems compared to others?

Way below *Less usable* *More usable* *Far superior* *Don't know*

14. What is really needed in the way of materials is:

_____

_____

15. What is really needed in the way of materials delivery system is:

_____

_____

NATIONAL CENTER FOR CAREER EDUCATION EVALUATION

TIMELINE

May 15, 1979	Questionnaire sent
May 30, 1979	Follow-up
May 30, 1979	Verification of Scope of Work
June 15, 1979	Data received
July 10, 1979	Key punched - input completed
August 30, 1979	Summary of data and report in draft
September 30, 1979	Final report due